

Times and Seasons: An Archaeological Perspective on Early Latter Day Saints Printing

ABSTRACT

The Mormon experience in early newspaper printing paralleled the common fortunes of the church and its followers from the founding in 1830 to the fragmentation in 1846. These quasi-official extensions of church doctrine and practice were highly effective in publicizing the new religion.

The most influential of several Mormon newspapers—*Times and Seasons*—was printed in four successive shops at three locations in Nauvoo, Illinois, from June 1839 to May 1846. Their locations and sequence, two of which were in dispute, drew upon historical sources, architectural remains, and patterned artifact distributions.

Printing types and line-of-type separators were distributed horizontally in such manner as to indicate strongly that the first two shops were in two successive buildings on the same site.

Type sorts excavated, compared to expected frequency sort from standard fonts, suggested a non-random loss-discard situation for some letters related to subject matter of *Times and Seasons*.

Introduction

The Church of Jesus Christ of Latter Day Saints (LDS), is one of the most successful of various religious groups originating in America. From humble beginnings at Fayette, New York, in 1830, the church gained converts rapidly as it found successive, but temporary, homes at Fayette; Kirtland, Ohio; Independence and Far West, Missouri; and Nauvoo, Illinois. After fragmentation at Nauvoo in 1846, the followers of Brigham Young settled the valley of the Great Salt Lake in what is now Utah, where the LDS Church has exercised strong religious and secular influence ever since. Its members commonly refer to themselves, and are so referred to by others, simply, as Mormons.

Those who were faithful to doctrines of the church founder, Joseph Smith, Jr., did not join

the epic trek to the West but remained at Nauvoo or were scattered to various places after 1846. Several congregations were formed and remained more or less viable through the years. In 1868, a son of the founder, Joseph Smith III, exercised his conviction, shared by many others, that he was his father's rightful heir to the church leadership. He effected a restoration of the original doctrine and practice. Thus was born the Reorganized Church of Jesus Christ of Latter Day Saints (RLDS). Today, it is a strong organization with world headquarters at Independence, Missouri. Its members commonly refer to themselves simply as Saints.

The Missouri Experience

All Latter Day Saints, whether now LDS or RLDS, throughout their history have placed great faith in the printed word. They have depended on it, particularly in the early years, to support missionary activities of the church and, in later years, to report and analyze worldly matters as well. But it was an intense preoccupation with spiritual service to the Saints that caused the earliest Mormon printing not only to set the pattern for what was to come but also to sow the seeds of discord between Mormons and non-Mormons (Banks 1948:1–2).

The Evening and the Morning Star was begun in June 1832 at Independence, Missouri. It was the first newspaper to be published by the Saints, just two years after the founding of the church. It was also among the first newspapers in Missouri, coming only 24 years after Joseph Charless' *Missouri Gazette* (1808–1818), the first paper in St. Louis, then the capital of the territory.

In the fall of 1831, soon after the first contingent of Saints arrived at Independence, it was reported at a church conference at Hiram, Ohio, that the frontier community had no printing press and no church. Church leaders at the conference instructed W. W. Phelps, a poet-journalist-editor of Canandaigua, New York, and recent convert to the faith, "to stop at Cincinnati on his way to Missouri from

Kirtland, Ohio, where he had come from New York and purchase a press and type, for the purpose of establishing and publishing a monthly paper at Independence, Jackson County, Missouri. . . ." (*Times and Seasons* V February 1, 1843:481). Phelps arrived in Missouri and in February 1832 issued a prospectus for the paper—a 16 page monthly to be called *The Evening and the Morning Star*. The office was located in a 2-story brick building on Liberty Street, south of Lexington, which also, later, housed the *Upper Missouri Advertiser*, a weekly devoted to general news and advertising. It was begun in August 1832, two months after the *Star*. The two papers employed a work force of seven. The *Star* was printed in quarto form and brevier type. Of the 24 numbers that were printed, one contained an advertising supplement. Few advertisements appear in surviving numbers of the paper. No copies of the *Upper Missouri Advertiser* are known to exist, and it was seldomly mentioned in the pages of the *Star*. The *Advertiser* lasted from August 1832 to July 1833 (Banks 1948:11–13).

Editor Phelps was a single-minded, zealous convert who devoted his time to gathering news of interest to the Saints and in printing long and tedious expositions of church doctrine and organization. Hymns, written by various church members, also occupied many columns in the paper. Later, and present day, Mormon interest in ancient civilizations of the Americas was presaged as early as February 1833 when the *Star* reprinted a story from the *London Gazette* about the discovery of ruins in Central America which, as was said, ". . . rescue America from the charge of barbarism." Phelps' editorial comment on the account is typical of selections designed to support particular beliefs:

We are glad to see the proof begin to come of the original or ancient inhabitants of this continent. It is good testimony in favor of the *Book of Mormon*, and the *Book of Mormon* is good testimony that such things as cities and civilization "prior to the fourteenth (sic) century," existed in America (*The Evening and the Morning Star*, February 1833).

The May 1833 number devoted 10 of its 16 pages to a revelation previously given the church and, in June, editor Phelps began publishing the first chapters of the *Book of Mormon*. That his choice of material to print met with the approval of church officials is evidenced by a letter from the church leaders dated June 25, 1833:

We feel gratified with the way in which Bro. William W. Phelps is conducting the *Star* at present; we hope he will render it more and more interesting.

The letter was from "History of Joseph Smith," and it appeared in *Times and Seasons* (February 15, 1845). Phelps evidently pleased his superiors in the church, but he neglected the gentile community and its interests. At first not even international news was included unless it was the kind that tended to support church doctrine. The conviction of the Saints that they were living in "the last days" obviously influenced selection of extra-local news items for reprinting. These were strongly weighted on the side of reports of natural disasters and other apocalyptic events prophesied to become legion in the last days. The first issue of the *Star* contained a statistical account of cholera deaths in England, France, Spain, and Persia. Reports of epidemics, pestilence, earthquakes, war, and civil strife were to appear with regularity from that time on.

Phelps did have quite a lot to say about one current national issue: slavery. His strongly pro-Negro stance did not endear him to the gentiles in the community, most of whom held the opposite view. Also, since his Saints readership already were instructed in the faith, Phelps apparently made no attempt to publish articles designed to acquaint the unsympathetic population with the peculiarities of Mormonism. These characteristics, though entirely accepted by Saints, occasionally led to certain excesses which could hardly help spilling over into the generally unschooled and rather volatile populace of the raw, frontier community.

It is true that the *Star* was ostensibly a pri-

vate undertaking (W. W. Phelps and Company), yet the church leaders reserved to themselves the right to decide who the editor to represent them should be. In practice the paper was representative of the thinking and doctrine of a new, aggressive, and widely misunderstood religious movement. There is no doubt that it profoundly influenced relations with the gentile community.

Most settlers in western Missouri were recent immigrants from southern states and their attitudes were overwhelmingly those of the slave-holding South. There was a heavy admixture of illiterate adventurers, unscrupulous land speculators, and thieves common to all frontier communities. In contrast, the Saints were nearly all northerners: industrious, generally schooled, fastidious and, above all, imbued with a religious zeal which could hardly have been more effective in arousing the passions of the uninformed had it been specifically designed for that purpose. Saints seemed to speak with one voice and act in unison on many issues of importance to Saints and gentiles alike. A most inflammatory tenet of Mormonism was that of a God-given "inheritance" which, the Saints made a point of publicizing, embraced the land then comprising Jackson County. This doctrine was misunderstood and perverted, in the minds of many, to mean that the Saints meant only to bide their time until their growing numbers and political power permitted them to take over Jackson County to run as they saw fit.

The favorable attitude of the Saints toward the Indians was another sore point. The non-Mormons, generally, looked upon Indians as heathenish and dissolute and as dangerous competitors eager to expel them if they could but gain the means. In contrast, the Saints held Indians in sympathy, if not esteem, because their *Book of Mormon*, which they believed to be inspired of God, was purported to be in part a history of the aboriginal peoples in America.

The Saints were also sympathetic toward the Negro, partly because of their northern

tradition and partly because they were a minority already suffering periodic persecution. The fact that the Saints were northerners was probably sufficient to make them unpopular in Missouri. Aspiring politicians and demagogues, as well as incumbent officeholders, rather quickly grasped the political implications of the rapid spread of Mormonism and had begun to make political hay of it. The idea was spread that if the Mormons should vote in a solid block, as they had been known to do, they would soon be in a position to dominate completely the local and eventually the state political situations. The church president, in July 1832, wrote of the *Star's* initial impact outside its own community:

So embittered was the public mind against the truth that the gentile press universally had been arrayed against us; and although many newspapers published the prospectus of our new paper, yet it appeared to have been done more to calumniate the editor than give publicity to the sheet. (*Times and Seasons* V, [September 2, 1844], 626).

The Saints had, in early 1832, been accused of inciting slaves to sedition by inviting free negroes to come to Missouri and join the church. A Missouri law forbade such immigration unless the emigrant held a certificate of citizenship from another state. Realizing this to be a point of growing contention, Phelps published a reprint of the state law for which he gave the reason,

... to prevent any misunderstanding among the churches abroad respecting free people of color, who may think of coming to the western boundaries of Missouri as members of the Church (*The Evening and the Morning Star* II, [July, 1833]: 5).

This was an open admission of the legal position as well as a timely reminder to other churches in the matter. It was certainly a moderate advocacy, but, unfortunately, Phelps concluded with an additional commentary that left no doubt of his and, by implication, the church's, attitude toward slavery:

... as to slaves, we have nothing to say; in connection with the wonderful events of this age much is doing

toward abolishing slavery, and colonizing the blacks in Africa (*The Evening and the Morning Star* II [July, 1833]: 8).

It may well have been this closing statement, innocuous as it might have been intended, that was responsible for the more rapid culmination of the bitterness that had been building (Banks 1948:19–31).

It was within this context that non-Mormons in western Missouri formed their opinions of the Saints—opinions which progressed rapidly from initial indifference, through mistrust and resentment, finally crystallizing in open hostility and overt action against the Saints. The latter retaliated in response to real and, no doubt, occasionally, to imagined wrongs.

On July 18, 1833, a citizens manifesto was circulated in which Mormons were accused of inviting free Negroes and mulattoes to settle in Jackson County and embrace the Mormon religion. For this and other grievances, the paper circular warned Mormons to leave the county or be forcibly expelled. Two days before, apparently in an attempt to forestall serious trouble, Phelps had printed an editorial in a *Star* “extra” claiming that there had been no intention to invite freed slaves to enter the county and the church—quite the opposite in fact! In this, Phelps went against church policy and doctrine as Negroes never had been excluded from membership nor were they later to be. But matters had gotten out of hand, and two days later church leaders, realizing the extreme delicacy of the situation, requested three months in which to find a suitable place to continue publication of the paper. This request, and another, shortening the time to 10 days, were turned down, and almost immediately a mob descended on the newspaper office, “tore out the press, pied (mixed) the type and generally demolished the whole establishment” (Banks 1948:33–36).

Destruction of *The Evening and the Morning Star* was not the first time, nor the last, that one of America’s cherished liberties—freedom of the press—had been violently

denied. Eleven years later at Nauvoo, Illinois, the Saints themselves were to be guilty of the same offence. In the former case the Saints took their grievance to the state, then to federal authorities without success. In the latter protests by the wronged ended in a much different way (see below).

The press used to print *The Evening and the Morning Star* was not destroyed, and it enjoyed a life of nearly 50 more years, during which time it was used successively by the *Missouri Enquirer* at Liberty, Missouri (*Times and Seasons* VI [July 15, 1845]:960–61); the *St. Joseph Gazette* at St. Joseph, Missouri (Organ 1910:123); and by at least one paper in Colorado (Smith 1912:147–148). The *Star*, also was not destroyed as it resumed publication at Kirtland, Ohio, in December 1833, under the ownership of F. G. Williams and Co. with Oliver Cowdery as editor. It and a new paper, to be called *Latter Day Saints’ Messenger and Advocate* were authorized in September 1833, and the two were to be printed concurrently until such time that the *Star* could resume publication “at its former location” (*Times and Seasons* VI [April, 1845]:850). In October 1834, the *Messenger and Advocate* replaced the *Star* after the latter was discontinued. The paper survived into the first few months of the great Panic of 1837 but closed in September of that year due to financial problems. The last issue of the *Messenger and Advocate* was dated August 1837, and in it the prospectus for a new paper, *The Elders’ Journal*, appeared. Joseph Smith, Jr., was to be editor and his younger brother, Don Carlos Smith, was put in charge of correspondence and business matters (Banks 1948:111–16). In November 1837 the building was sold to satisfy a court judgment, and shortly after, it burned. There appears to be no record of whether the press and type were also burned. Possibly, they were transported to Far West, Missouri, where, in July 1838, the *Journal* was revived in anticipation of a long tenure at the “new zion” on Missouri’s western frontier. It is, perhaps, significant in this regard that the

same size and kind of type, 6 point bourgeois, appear in the *Elders' Journal* and the *Times and Seasons* which was established a year later at Nauvoo and which reportedly used the press and type rescued from Far West.

By July 1834 the Saints, suffering unrelenting pressure and heavy losses, had all fled Jackson County. Some of them crossed the Missouri River into adjacent Clay and Ray counties, but most returned to Ohio. In Missouri, there followed some three years of relative quiet during which time the few Saints remaining in Ray, Clay, and nearby counties barely maintained their numbers while bearing occasional sniping by their detractors.

On December 27, 1836, the Missouri legislature authorized organization of Caldwell County, northeast of Clay and, before, part of Ray, for the exclusive settlement by Mormons. Saints, generally, interpreted this act as a long-overdue expression of the state government that Saints were to begin receiving their due. By early 1837 the population in the new county was increasing rapidly in response to this official dispensation and to urging by church president Smith who already was in Missouri. The county seat and main town was named Far West, and it was developing into a thriving community during that year. Immigrants poured into the area from Kirtland and other places, until the desirable locations were all settled. Following that the overflow spilled into adjacent counties. The older non-Mormon residents of the area, remembering the troubles in Jackson County, became increasingly restive about the influx of Mormon settlers. They misunderstood or strongly disagreed with most of the tenets of Mormonism and were apprehensive of their growing political power. Not so readily apparent, but a factor nevertheless, was jealousy of the Mormons' industry and success in agriculture and business (Banks 1948:125).

July 4, 1838, was chosen as the day for laying the cornerstone for the temple planned for Far West. The occasion was a momentous one for it was then that Sidney Rigdon, prominent

church leader and golden-voiced orator, delivered an impassioned speech in which he declared that Saints would no longer suffer persecution without retaliation and, since appeals to state and federal authorities for redress of grievances suffered in Jackson County had been unsuccessful, it remained only for them to take matters into their own hands should such depredations as had occurred in the past chance to recur. The text of the oration was printed in a paper at Liberty and, in pamphlet form, by Ebenezer Robinson, working with the *Elders' Journal* press at Far West. The event proved to be a firebrand among the older non-Mormon settlers of the area, and it was probably this speech more than anything else that rekindled the old animosities and again set in motion events which were to result in the complete expulsion of the Saints from Missouri. The speech was widely interpreted as the beginning of a "Mormon offensive." Events moved rapidly after that, and in August 1838 the *Elders' Journal* ceased publication. According to tradition the press and type were buried on the property of a Mormon named Dawson. It was this same press which was, less than a year later, dug up and carried to Nauvoo, Illinois, where it was used to print the *Times and Seasons* (Smith 1910:82).

Deterioration of the Mormon position in Missouri continued until on October 28, 1838, Missouri Governor Lilbourne Boggs issued his infamous "extermination order" designed to rid the state of Mormons. Armed militia from several localities made ready to ride for the troubled area. On October 30, 200 men from Livingston County, emboldened and with a "license" from the Missouri governor, attacked a Mormon immigrant camp at Jacob Haun's mill in eastern Caldwell County, killing 17 and wounding about 13 men, women, and children. A few managed to escape. On the same day the town of Far West was surrounded by militia commanded by General Lucas, and the Mormon garrison surrendered without resistance. All the prominent church

leaders who were there were arrested and held as hostages. Others were rounded up and brought in the following day. On October 31, General Lucas commanded General Doniphan to take the Mormon leaders to the town square at Far West and shoot them. Doniphan refused to execute the order, protesting that it was cold blooded murder. Instead, the Mormon leaders were taken to Richmond for trial. This decision undoubtedly changed significantly the history of the LDS Church as well as the history of Mormon newspapers. Attempts to prove treason charges against Joseph Smith, Jr., failed, and he and five others were moved to Liberty and imprisoned there. Most of the others were released.

In April 1839 the prisoners were moved to Gallatin in Daviess County. General Doniphan who, by then, was retained as an attorney for the Saints, adopted the position that it would be impossible to obtain a fair trial in Daviess County. He petitioned the court for a change of venue to Boone County. His request was allowed, and later that month, while the prisoners were being transported to Columbia, they were "allowed to escape" (Banks 1948: 148–53).

Establishment of Times and Seasons

The great exodus from Missouri to Illinois began in the winter of 1838–1839, and, by the time of Joseph Smith's escape from custody, many of the Saints formerly in Missouri had crossed the Mississippi and were gathered in and around Quincy, Illinois. Most of the remainder arrived the next spring. Among the refugees were Ebenezer Robinson and Don Carlos Smith, younger brother of the prophet Joseph Smith Jr. Robinson had, shortly after leaving Missouri, taken a job as typesetter for the *Quincy Whig*. During the flight from Missouri, the two men had dug up the press and type that were buried at Far West and had hauled them across the frozen prairies of northern Missouri to Illinois.

Early in the year, at Quincy, church leaders

had selected Robinson and Smith to be editors and publishers of a new newspaper, promising them all the profits from the undertaking. Both men had had experience in the printing business. Robinson had been a journeyman printer before joining the church at Kirtland and, later, worked in the mechanical department for the *Messenger and Advocate*. Smith had been an editorial assistant with the *Elders' Journal* at Kirtland. In June, soon after receiving their "mandate," the men met at Commerce (later renamed Nauvoo, by the Saints), Illinois, and began making plans for the new paper. They secured makeshift quarters in the basement of a building formerly used as a warehouse and set up their press there. They were plagued by several difficulties, not the least of which was the job of cleaning the press and type and getting them into working order after their resurrection from the Missouri soil at Far West. Another problem was that neither Robinson nor Smith had any capital with which to begin the business. They were forced to buy a supply of printers' type on credit and to secure a loan with which to purchase paper. Only 200 copies of the July issue were off the press when both Robinson and Smith came down with "chills and fever" (thought to have been relapsing malaria). Before they could return to work, much of their paper supply mildewed from the dampness in the floorless basement where it was stored. It was not until November of that year that the first complete number, Volume 1, Number 1, was issued (Figure 1). In this issue it was pointed out that the July and November numbers were to be considered one and the same—only the date was changed and a few additions made (*Times and Seasons* 1, 16). The photostat copy of *Times and Seasons*, from which these references were taken, do not include the July issue but begin with the November issue.

Operation of *Times and Seasons* was well established by the summer of 1840. Subscriptions continued to increase; the publishers had regained strength from their long, debilitating bouts with malaria, and both had built log cabins near the printing office (*The Return*

TIMES AND SEASONS.

"TRUTH WILL PTEVAIL."

VOL. I. No. 1.]

COMMERCE, ILLINOIS, NOV. 1839.

[Whole No. 1

ADDRESS.

As this No. commences the *Times and Seasons*, it is but proper that we should lay before its readers, the course we intend to pursue, with regard to the editorial department of the same.

We wish to make it a source of light and instruction to all those who may peruse its columns, by laying before them, in plainness, the great plan of salvation which was devised in heaven from before the foundation of the world, as made known to the saints of God, in former, as well as latter days; and is, like its Author, the same in all ages, and changeth not.

In order for this, we may at times, dwell at considerable length, upon the fullness of the everlasting gospel of Jesus Christ, as laid down in the revealed word of God; the necessity of embracing it with full purpose of heart, and living by all its precepts; remembering the words of our Savior, "he that will be my disciple let him take up his cross and follow me."

We shall treat freely upon the gathering of Israel, which is to take place in these last days—of the dispensation of the fullness of times, when the fullness of the Gentiles is to come in, and the outcasts of Jacob be brought back to dwell upon the lands of their inheritance, preparatory to that great day of rest, which is soon to usher in, when Christ will reign with his saints upon earth, a thousand years, according to the testimony of all the holy prophets since the world began.

We shall also endeavor to give a detailed history of the persecution and suffering, which the members of the church of Jesus Christ of Latter Day Saints, has had to endure in Missouri, and elsewhere, for their religion. A mere synopsis of which, would swell this address to volumes; therefore we are compelled to let it pass for the present, by touching upon a few of its most prominent features.

In Jackson county, Missouri, in the year 1833, several were murdered—one whipped to death—a number shot—others whipped until they were liv-

ally cut to pieces, then left to die; but God, through his kindness, spared their lives—others tarred and feathered—between two and three hundred men had their houses plundered, and then burned to ashes, and they, with their wives and little ones, driven into the forests to perish.

Again, in 1836 they were informed by the citizens of Clay county Mo. (where they settled after being driven from Jackson,) that they could dwell there no longer; consequently they were compelled to seek a location elsewhere; notwithstanding the greater part of them had purchased the land upon which they lived, with their own money, with the expectation of securing to themselves and families, permanent abiding places, where they could dwell in peace: but in this they were mistaken, for in the latter part of this same year, they were obliged to move out of the county, when they went to a back prairie country, where the other citizens assured them they might dwell in safety.

Here they commenced their labors with renewed courage, firmly believing they were preparing peaceful homes, where they could spend the remainder of their days in the sweet enjoyment of that *liberty* which was so dearly bought by the blood of their venerable Fathers, but which had been so cruelly wrested from them, by the hands of their oppressors, in both Jackson and Clay counties. But here again they were sadly disappointed, for no sooner had they built comfortable dwelling places, and opened beautiful and extensive farms, which their untiring industry and perseverance soon accomplished, than their neighbors in the adjoining counties began to envy them, and look upon them with a jealous eye; so that in the year 1839, mobs again began to harrass and disturb them, by stealing their cattle and hogs, burning their houses, and shooting at their men; when they petitioned the Governor for protection, which he utterly refused. They then saw there was no other way but to stand in their own defence;

2:258). Thus encouraged, the men set out to expand their printing activities when they, in April 1840, inserted an ad in *Times and Seasons* soliciting a loan of \$1000 to be used for book printing (*Times and Seasons* I, [April, 1840]:91). That they were successful in securing the loan is indicated by another insertion in July that the Book of Mormon was being stereotyped and printed at Cincinnati (*Times and Seasons* I [July, 1840]:139–40). The next issue contained an announcement that Robinson had gone to Cincinnati for the books (*Times and Seasons* I [August 1840]:160).

An attempt was made in April 1840 to initiate an agricultural weekly, *The News*, but this was unsuccessful, apparently because of a lack of response in the form of advance subscriptions.

In the fall of 1840, a full volume of *Times and Seasons* had been published, and the editors wrote that the great demand for publications made it necessary to commence bi-monthly issuance of the paper. The new volume was also to have general news items and advertisements, in addition to the main concern of essays on the gospel and the priesthood. In December, Robinson relinquished control to D. C. Smith.

Don Carlos Smith found his increased responsibility and longer hours trying. He was still in fragile health from his relapsing malaria contracted two years before. Probably because of this, in May 1841, he secured additional help in the form of another partnership—this time with R. B. Thompson, the church clerk (*Times and Seasons* II [May 1, 1841]:402). However, Smith's health continued to deteriorate, and on August 16, he died. The same issue that reported Smith's death carried a notice that Robinson would resume a part of the editorial work with Thompson, but Thompson also was fatally stricken only 20 days after his partner Don Carlos, leaving the paper solely in the hands of Ebenezer Robinson (*The Return* 3:302). In October, *Times and Seasons* closed its second volume, and Robinson optimistically forecast

his intentions as to the direction to be taken in volume 3. A principal addition would be the printing of regular communications from Elder Orson Hyde, then serving a mission in Palestine, and from other missionaries in England, Scotland, and Wales.

It was also at this time or earlier that Robinson moved the *Times and Seasons* from the frame building which had been its home more than two years to another location. The issue of December 1, 1841, reported the move apparently several months after it had been made (see below).

The volume of material to be printed in the paper was growing, and Robinson's initial solution to the space problem had been to increase his use of smaller point type. This fact may be observed in issues of the paper dated after 1841. On January 15, 1842, Robinson announced that he had employed an assistant editor, Gustavus Hills, to help in the *Times and Seasons* office (*Times and Seasons* III [January 15, 1842]:663).

In the fall of 1841, the Quorum of Twelve, High Council of the Church, had begun to assume their expanded duties and prerogatives conferred upon them earlier by Joseph Smith, the prophet. One of their decisions was that the church should own the *Times and Seasons*. The decision may have been withheld from Robinson at the time, but in late November they applied pressure on a reluctant Robinson to sell the paper to the church. If he would not, said the Twelve, they would begin a paper of their own. Robinson resisted until convinced by a revelation presented to the Twelve by Smith which indicated that it was God's will that the paper be in the hands of the church hierarchy. Robinson then relented, and the sale was completed on February 4, 1842. It was reported in the paper that the editorship was being assumed by "our esteemed brother, President Joseph Smith." He was to be assisted by John Taylor. Smith apparently never became directly involved in editing the paper; however, because he, as Trustee in Trust for the Church immediately

sold the printshop, press, bindery and foundry to John Taylor. Taylor took over a thriving business which had, only some two months before, been installed in a new and commodious (probably brick) building erected expressly for the accommodation of the business (Flanders 1965:250–51). In Taylor the Twelve evidently had found an editor who would do always as they wished, for he was to continue in that capacity until the last issue of *Times and Seasons* which appeared February 15, 1846.

The idea for a “secular” newspaper at Nauvoo was considered as early as April 1840, but it was not until April 16, 1842, that it became reality. It was named *The Wasp* and was edited by William Smith, one of the brothers of Joseph Smith. It was a weekly devoted to news of agriculture, trade, and general news. Later, it was to become largely a political organ. In December 1842, following William Smith’s appointment to a mission, the editorship was assumed by John Taylor. *The Wasp* was published at the same address, presumably in the same building—using the same equipment, as *Times and Seasons*. After the first volume, *The Wasp* was changed to *Nauvoo Neighbor*. Taylor had already, the previous month, become immersed in the newspaper business when Smith, pleading insufficient time to attend to *Times and Seasons*, had turned that paper over to him. The two papers, *Times and Seasons* and *Nauvoo Neighbor*, were destined to endure until the end of Mormon hegemony at Nauvoo in February 1846.

Times and Seasons played a significant role in the phenomenal growth of Nauvoo during the years 1843–45. It maintained a broad exchange service with papers throughout the nation and in several foreign countries. These, as was the custom, reprinted much material from *Times and Seasons*, thus keeping much of America and the world, particularly England, informed of the rapidly growing and enterprising Mormon metropolis in Illinois. Thus, the two newspapers had left their grow-

ing pains behind them and come of age, in a manner of speaking, by 1843, a few months into the three-year period that was to be the most significant and momentous time in the history of the early church (Banks 1948:164–206).

Nauvoo and the Mormons on Trial—1842–1846

As with most rapidly growing undertakings, not only were there reputable and good men attracted to it but disreputable opportunists as well. One of the latter, John C. Bennett, who joined the church and came to Nauvoo in the summer of 1840 is generally regarded as a major source of growing dissension within the church that eventually led to the assassination of Joseph and Hyrum Smith and the schism which persists to the present day. Soon after Bennett’s arrival at Nauvoo, church officials had received warning of his unsavory past. The warning went unheeded because, as it was said, good men are often maligned. Bennett rose rapidly in sensitive positions—becoming mayor of the city, founder of and “general” in the city militia (Nauvoo Legion), and confidant of Joseph Smith, among other things.

By mid-summer of 1842, Bennett’s indiscretions, questionable practices, and, particularly, his undue influence on many of the church leaders engendered sufficient concern to prompt *Times and Seasons* to print the 1840 letter warning of Bennett’s treacherous nature. In addition, a particularly serious charge was leveled against him—that he, although married, was keeping company with a young woman at Nauvoo. Bennett publicly admitted the affair and pledged to break off the relationship. However, he had already begun surreptitiously to spread, among several women in the city, the allegation that not only did church authorities sanction extramarital affairs but actually indulged in the practice themselves (*Times and Seasons* III, [July 1, 1842]:840). Following the exposé an investigation by

church authorities revealed that Bennett's activities had encouraged others to become involved in adulterous relationships. Bennett resigned as mayor of Nauvoo on May 17, 1842, and in a meeting of aldermen shortly after, absolved President Smith of any complicity in the activities of which he (Bennett) was accused. The *Times and Seasons* printed affidavits by various prominent citizens and by groups reaffirming the church's stand on the important issue of polygamy. Largely because of the scandal, Bennett was disfellowshipped and expelled from Nauvoo. He, at once, launched a series of vindictive efforts to discredit Joseph Smith and others of the church hierarchy. These included tirades in anti-Mormon newspapers, particularly the *Warsaw (Illinois) Signal*; the lecture circuit; and an attempt to implicate Joseph Smith in an alleged plot to assassinate former Missouri governor Lilbourne Boggs, his old enemy. Eventually, in late 1842 in Boston, Bennett published a book on "... an Expose of Joe Smith and Mormonism." Bennett's intemperate condemnation of the administration at Nauvoo and of Mormonism was only among the worst of many criticisms by the press. These were often reprinted, usually with rebuttals, in the *Times and Seasons*. They took their toll—even influencing many Saints and reinforcing a long-standing tendency toward apostasy (defection) by prominent church leaders (Banks 1948:206–17).

Missouri made repeated attempts to extradite Smith in connection with the plot to assassinate Boggs, but the city charter of Nauvoo made it legally possible for the city government to thwart such efforts. Governor Ford of Illinois opposed the extradition on the basis that the charges were groundless. He had noted previously, however, that Nauvoo's charter was objectionable in many ways. With the charter coming under fire from several newspapers and from the governor of the state, both the *Times and Seasons* and the *Nauvoo Neighbor* began printing protests against threatened suspension of the charter.

The extradition quarrel was finally set to rest by a United States District Attorney for Illinois, who sided with Smith. This was an outcome which highly pleased the Saints, and Smith's prestige rose to new heights. He was well known; many newspapers throughout the country spoke with favor about him, and his city on the Mississippi was continuing its magnetic attraction for new residents and converts to Mormonism. In the fall of 1843, Smith's friends thought the time was ripe for a man so successful to be honored by higher office. The *Times and Seasons* told its readers that they should be thinking about a man to be candidate for President of the United States and that it should be a man who would be most likely to help them obtain justice for the wrongs they had suffered in Missouri. In January 1844, the *Times and Seasons* printed correspondence between Smith and John C. Calhoun, an already announced presidential candidate, on the subject of how he (Calhoun) might look upon the Saints' claims against Missourians, should he be elected. Calhoun replied that he would consider it a matter to be attended to by the state and not the Federal government. In the February 15 number of the *Times and Seasons*, editor Taylor came out in support of Joseph Smith, Jr., as candidate for President of the United States, following up his implied endorsement the previous October, when he pointed out that "a vote of 50,000 or 100,000 . . ." might make an impression on the "rulers of our nation" (*Times and Seasons* IV, [October 1, 1843]:344).

Meanwhile, internal troubles continued to plague the Church. The *Times and Seasons*, on February 1, 1844, published a communication from President Smith and his brother Hyrum that a church missionary, Hiram Brown, had been discovered preaching the doctrine of polygamy (*Times and Seasons* V, [February 1, 1844]:423). At that time John Bennett was still scourging the Saints on the same subject.

Probably, it is impossible to know the real extent of harm done by Bennett to the Saints

at Nauvoo. At the least he hastened the growth and maturity of disruptive forces within the church while enflaming widespread public opinion against Mormonism and the administration of Nauvoo. One of the first overt indications of serious internal problems was printed on the back page of the *Times and Seasons* for April 15, 1844. It was revealed that four of the most prominent members of the church and citizens of Nauvoo had been disfellowshipped. One of these, William Law, had been a member of the First Presidency. This brought into the open the growing opposition within the church to the administration at Nauvoo. After that events moved rapidly. Less than two months later, the expelled members retaliated by issuing several hundred copies of a 6 column, 4 page newspaper named *The Nauvoo Expositor*. In it there were sown the seeds of the wind which were to result in the whirlwind that destroyed Nauvoo. The church president was the particular target chosen by the *Expositor's* publishers:

We most solemnly and sincerely declare, God this day being witness of the truth and sincerity of our designs and statements, that happy will it be with those who examine and scan Joseph Smith's pretensions to righteousness; and take counsel of human affairs, and of times gone by. Do not yield up tranquilly a superiority to that man which the reasonableness of past events, and the laws of our country declare to be pernicious and diabolical. We hope many items of doctrine, as now taught, some of which, however, are taught secretly and denied openly, (which we know positively is the case) and others publicly, considerate men will treat with contempt; for we declare them heretical and damnable in their influence, though they find many devotees. . . . (*The Nauvoo Expositor*, June 7, 1844).

The *Expositor* then proceeded to accuse Joseph Smith of "spiritual wifery" and of perceiving himself a prophet "raised up to christianize a world by political schemes and intrigue. . . ." The dissenters then went on to express themselves in four resolutions published in the *Expositor*:

Resolved. That we disapprove and discountenance every attempt to unite church and state; and that we further believe the effort now being made by Joseph Smith for the political power and influence, is not commendable in the sight of God.

Resolved. That we consider the religious influence exercised in financial concerns by Joseph Smith, as unjust as it is unwarranted, for the Book of Doctrine and Covenants makes it the duty of the Bishop to take charge of the financial affairs of the Church, and of all temporal matters pertaining to the same.

Resolved. That we consider the gathering in haste, and by sacrifice, to be contrary to the will of God; and that it has been taught by Joseph Smith and others for the purpose of enabling them to sell property at most exorbitant prices. . . .

Resolved. That we consider all secret societies, and combinations under penal oaths and obligations, (professing to be organized for religious purposes) to be anti-Christian, hypocritical and corrupt.

This last resolution evidently was a protest of Smith's participation in Freemasonry at Nauvoo.

Editor Taylor of the *Times and Seasons* apparently was unaware that such a bombshell was to be planted in Nauvoo. Neither does there seem to be evidence that anyone else, except the dissenters, knew of the plan. One might well wonder how publishers of the *Expositor* managed to secure a press and have it delivered without someone of influence becoming privy to the affair.

Three days after publication of the *Expositor*, the city council passed an ordinance declaring the paper a "nuisance" and directed Joseph Smith, the mayor, to suppress it. The order issued by Smith to the city marshal read as follows:

You are hereby commanded to destroy the printing press from whence issues the *Nauvoo Expositor*, and pi [mix] the type of said printing establishment in the street, and burn all the *Expositor* and libelous handbills found in said establishment; and if resistance be offered to your execution of this order by the owners or others, demolish the house; and if anyone threatens you or the mayor or the officers of the city, arrest those who threaten you, and fail not to execute this order without delay, and make due return thereon (Roberts 1948 [VI]:448).

By the evening of June 10, 1844, the order had been carried out and the *Nauvoo Expositor* was no more. Publishers Wilson and William Law, C. A. Foster, Francis Higbee,

and others connected with the paper fled Nauvoo following destruction of their press.

The news spread like a prairie fire and was soon on Governor Ford's desk. At Carthage on June 12, the dissenters signed a warrant for the arrest of Joseph Smith and 17 others on a charge of riot. Upon the serving of the warrant, the accused fell back on the device which had proved so convenient in the past—they applied for and received a writ of habeas corpus from the Nauvoo municipal court. An investigation resulted in the dropping of the charges.

This instance of suppression of freedom of the press was the kind of overt act that detractors of the Mormons and of the administration at Nauvoo had been waiting to seize upon. Further, the apparent fact that a provision of the Nauvoo charter—believed by many citizens to be unconstitutional—had provided an avenue of escape for the perpetrators, enflamed them even more. The anti-Mormon newspaper *Warsaw Signal* exploded into action, calling for force of arms to correct the wrong. Citizens of Warsaw and Carthage petitioned the governor to send state militia to take Joseph Smith and members of the city council of Nauvoo into custody. Ford called a committee from Nauvoo, and, after hearing their side of the story, concluded that the Nauvoo city council had violated the law "in assuming the exercise of judicial power" but had a right under the city charter, to issue writs of habeas corpus (Thomas Ford 1854: 324).

The 18 men charged with destruction of the *Expositor* went voluntarily to Carthage on June 24 after Governor Ford had promised them state protection. The protection turned out to be only eight men—a guard quite ineffective to repel an attack on the jail the following day by 150 armed men. Joseph and Hyrum Smith were shot and mortally wounded. Editor John Taylor was visiting with the prisoners at the time of the attack and was wounded by the gunfire. By July, however, he had recovered sufficiently to return to the

editor's desk. The July 1 number (Vol. 5, No. 12) of the *Times and Seasons*, was printed with columns edged in heavy black lines. The issue carried a full account of the tragedy at Carthage. In an editorial appearing in the July 15 issue, Taylor laid the blame for the assassinations on the apostates—men such as the Law Brothers, Foster, and Higbee (*Times and Seasons* V [July 1, 1844]:585).

The church had ample reason to be alarmed about unrelenting attacks from without, but now old jealousies, grievances, and the alleged violations within the hierarchy itself had surfaced in a most threatening manner. Editor Taylor, in the *Times and Seasons*, deplored these developments, venturing the opinion that a major cause had been the easy, good-natured, and ingenuous way of Joseph Smith himself who assumed everyone was honest and trustworthy. Thus, men such as John Bennett had easily won his confidence and had caused irreparable damage before their iniquities had been finally recognized and admitted (*Times and Seasons* V [July 15, 1844]: 583).

The assassinations proved to be the beginning of the end for Nauvoo. The church, already shaken by the issue of polygamy, had now to endure the death of its prophet, a bitter struggle for succession, and, the following winter, repeal of the city charter by the state legislature. The question of who should succeed Joseph Smith as president engendered such rancor and polarization of opinion among the leadership and laity alike that the church could never be the same again. In August 1844 the issue climaxed as Brigham Young emerged victorious over his chief rival, Sidney Rigdon. There followed a series of purges the extent of which had never before been seen in the church. All those who had spoken against Young, or who had supported another contender, were immediately disfellowshipped. Thus, a trend toward fragmentation first brought into the open by the exposure of John Bennett a year before had become full-blown. The great gathering at Nauvoo, which had

begun so auspiciously only five years before, now was irrevocably scattered. It seemed to be now almost a contest between the church and its enemies from without to see which could destroy it first.

By 1845 both county and state authorities seemed powerless to prevent an ever-growing series of threats, counter-threats, and outright clashes between Mormon and non-Mormon residents of the city and county. In September, 1845, Brigham Young announced that Nauvoo would be abandoned the following spring. After the decision to leave was made, the city rapidly became a beehive of activity in preparation for the exodus. Beginning in February 1846 and continuing well into the summer, the city was evacuated by all but a few Mormons. The few who remained had opposed Young and the drastic changes that he had instigated (Banks 1948:217-94).

Through the unsettling events of 1844, Until May 1845, the *Times and Seasons* had continued publication at the corner of Water and Bain streets. However, a move had evidently been contemplated prior to that, as the issue of May 15, 1845, was published at Kimball and Main streets, two blocks east and two north of the old location. Previous moves were the result of or, at least, closely related to the changing fortunes and/or ambitions of the publishers. This time, however, there was no clue as to what prompted the move. It may have been motivated by circumstances no less prosaic than those which had gone before. Publication continued at Kimball and Main until the last issue, dated February 15, 1846.

constitute a valid test of the locational hypothesis and, if this were confirmed, would result in a fuller description and interpretation of the nature of the printing plant, its operation, and the sequence of events attendant thereto. In particular, architectural details suitable to reconstruction plans were sought as was a distributional pattern of all artifacts clearly relating to the building construction and to the printing operation. Finally, the work was expected to provide an important check on the suitability of historical references used to build archaeological models.

The first part of this report is a discussion, in general terms, of the socio-cultural milieu within which the *Times and Seasons* and related publications originated, and some of their cause and effect relationships to this period of LDS history. It is now proposed to analyze those historical references which relate to the specific details concerning the sequence and nature of the *Times and Seasons* plants and to compare and contrast these with the archaeological findings. There will be repeated reference to several sources printed in the *Times and Seasons*; *The Return*, published by Ebenezer Robinson from 1889 to 1891 at Davis City, Iowa, and which contained autobiographical sketches of Robinson; and the Deed Books of Hancock County, Illinois, at Carthage.

Ebenezer Robinson wrote of himself that he arrived at Commerce in May 1839 and moved into a log house, which he renovated, about one mile north of the little village of Commerce:

In the month of May 1839, the writer moved from Quincy to Commerce, Illinois. . . . The only chance for a house was the body (roofless?) of a log house situated on the high ground in the woods near the river, about one mile north of Commerce. (*The Return* 2: 257).

Joseph Smith, Jr., had arrived in the area during the same month and, a little later, described Commerce as containing:

. . . one stone house, three frame houses, and two block houses. These . . . constituted the whole city of

Historical-Archaeological Investigations—1975

The primary objective of the investigations was to test the hypothesis that one or more of the four known buildings housing the *Times and Seasons* was on the southwest corner of block 149, lot 3 (intersection of Water and Bain streets) in the older section of Nauvoo.

It was anticipated that the research would

Commerce. Between Commerce and Mr. Davidson Hibbards (downstream, east) there was one stone house and three log houses, including the one that I live in, and these were all the houses in the vicinity, and the place was literally a wilderness (Roberts 1948:[3], 375).

Robinson, in his account, continued:

. . . The only room that could be obtained for the printing office, was a basement room in a building formerly used as a warehouse, but now occupied as a dwelling, situated on the bank of the Mississippi River. The room used for the printing office had no floor, and the ground was kept damp by the water constantly trickling down from the bank side. Here we set the type for the first number of the paper, which we got ready for the press in July, and had struck off only some two hundred copies, when both Carlos and the writer were taken down with the chills and fever. . . (*The Return* 2:257).

Robinson did not say where the warehouse was located—whether it was one of the six buildings in Commerce proper, one of the four “between Commerce and Mr. Davidson Hibbards,” or at another place not mentioned in the description of the area by either himself or Smith. The fact that it was described as a warehouse might indicate that it was near a boat landing. Commerce and Commerce City, both speculators’ towns, were platted on the western end of the peninsula that causes the great bend in the Mississippi at this location, and the few houses built there in pre-Mormon times were near what was known as Kimball’s Landing—a logical place for a warehouse but evidently some distance from the place that Robinson secured as his home. The warehouse near Kimball’s Landing, in early Mormon times, was referred to as “The Upper Stone House” to distinguish it from the White-Galland house near what later became Parley Street in Nauvoo. The latter was often called the White-Galland “Lower Stone House” (T. Edgar Lyon 1975, pers. comm.). Parley and Water streets parallel each other—Parley being two blocks north of Water. The exact site of the Lower Stone House has not been substantiated, but it was on the property of either Hugh White or Isaac Galland from which the church bought 135 acres and 47 acres respectively “about a mile south of Commerce” in May 1839 (Flanders 1965:35).

It is important to note that there is no documentation of the *location* of any *Times and Seasons* site prior to the one at the corner of Water and Bain in the White-Galland purchase. Only by implication is it suggested that the floorless basement with a water problem was in Commerce. Robinson never at any place in the record indicated that his first home and the warehouse were “near” each other, nor did he say that the warehouse was in Commerce. Both he and others graphically described a leaky, floorless basement which conforms remarkably well with the one discovered in the investigations of 1975.

Joseph Smith’s version of early events relating to *Times and Seasons* were recorded in his journal and published, as edited, in *History of the Church*.

In June, 1839, he (Don Carlos Smith) commenced making preparations for printing the *Times and Seasons*. . . . The types were considerably injured by the damp; it was therefore necessary to get them into use as soon as possible, and in order to do this, Don Carlos was under the necessity of cleaning out a cellar through which a spring was constantly [sic] flowing, as the only place where he could put up the press. Ebenezer Robinson and wife being sick, threw the entire burden on him (Roberts 1948:[4] 398).

Lucy Mack Smith, mother of Don Carlos and Joseph Jr., described the situation:

In the month of June, 1839, Don Carlos came from McDonough County to Commerce, for the purpose of making preparations to establish a printing-press. As the press and type had been buried during the Missouri troubles, and were considerably injured by the dampness they had gathered, it was necessary to get them into use as soon as possible; and in order to do this, Carlos was under the necessity of cleaning out a cellar, through which a spring was constantly flowing, for there was no other place at liberty where he could put up the press. (Smith 1946:369).

It is clear that Robinson’s first house was about a mile north of Commerce, on high ground at least a little distance from the river bank. It is not clear whether or not his house was “near” the warehouse used for the first printing office, nor is it clear that the latter was in Commerce proper. Based on the historical accounts, there is good reason to be-

lieve the lower stone house (or another not mentioned by Robinson or Smith) and the one discovered at the corner of Water and Bain were one and the same. Many years after the fact, Robinson related that,

. . . after the death of brother Hyrum Smith, his widow, Agnes M. Smith, wished to dispose of her entire interest in the *Times and Seasons* and I purchased the entire establishment, and combined it with my other business (*The Return* 3:302).

As with practically all of Robinson's autobiographical sketches, he failed to be specific about the time element. It was, of course, after June 1844, following the death of Hyrum. The "other business" referred to was Robinson's new *Times and Seasons* shop and book bindery which he had erected during the summer of 1842 (*Times and Seasons* 3:615). As is hopefully demonstrated later, the new building was located directly across Bain Street on block 150, lot 4. If that location is correct, Robinson may have used the old building, bought from Agnes Smith, ("the entire establishment") for storage or some such—since it was so conveniently located.

Agnes Smith mentioned the sale in a letter written in 1846 and addressed to Apostle George A. Smith: "I have sold the old printing office for seventy dollars" (McGavin 1946: 201). She did not mention the date of the sale. The LDS Church real estate records indicate block 149, lot 3 was assigned to Hyrum Smith in the spring of 1839, and, by implication, there is reason to believe that he was living there. The Hancock County deed records, however, indicate the recording date for the instrument as December 1841. Thus, the sale may have been a "bond-for-a-deed" and not recordable until the lot was paid in full. Recording might, instead, simply have been postponed until more than two years after the transaction (T. Edgar Lyon 1976, pers. comm.).

In spite of Hyrum Smith's ownership of the lot, it evidently was E. Robinson and D. C. Smith who had a building put up on it in the summer of 1839. This building was erected for

the express purpose of housing the *Times and Seasons* printing plant and to serve as the dwelling of E. Robinson and his family. The new building was considered necessary because the one in which the first issues of the paper were printed was clearly untenable. After the death of Hyrum Smith, Agnes Smith, his widow, undoubtedly owned her husband's interest in the printing office—that is, the building and lot, but she did not own the printing equipment. Neither did her husband before her, for that matter. From this, there seems to be reason to believe that she referred to the second *Times and Seasons* office which sat upon the lot which belonged to her following the death of her husband. It may be reasonably assumed that the first warehouse was rented or that Robinson and D. C. Smith simply were squatters in it for the short time preceding its purchase by the church. After the purchase it was possible to tear it down and put up the cheap, but structurally sound, frame house described by Robinson.

The 200 copies of the *Times and Seasons* which were issued in July 1839 were preceded shortly by a prospectus for the paper in which Robinson and Smith urged prospective subscribers to send money for their subscriptions at the rate of \$1.00 per year (*Times and Seasons* I:16). Robinson, in his autobiographical writings many years later, related:

Subscriptions for the paper started coming in, in answer to the prospectus, and the two hundred copies sent out, which enabled us to provide for our families; and also to have a small, cheap frame building put up, one and a half stories high, the lower room to be used for the printing office, and our friends moved myself and wife into the upper room, or chamber, in the latter part of August. . . . In the month of November, we secured the services of a young printer from Ohio, Lyman Gaylord, and resumed publication of the paper (*The Return* 2:258).

There was no mention by Robinson of the location of the new building. There seems to be good reason to believe that the only move made at this time was the press and type from the damp basement to the first floor of the new frame building erected over it. When publica-

tion was resumed in November 1839 there still was no clue in the paper as to the new location. No imprimature was printed, and the masthead read just as it had in the July issue. This situation continued unchanged until May 1840 when the following notice was printed:

All communications have, heretofore, been addressed to Commerce, but the name of the post office is now changed to Nauvoo. . . (*Times and Seasons* I:106).

After that the masthead was changed to read "Nauvoo, Illinois" (Figure 2). Not until December 15, 1840, did a publisher's imprimature appear that finally revealed the location of the printing office:

The *Times and Seasons* is printed and published about the first and fifteenth of every month on the corner of Water and Bain Streets, Nauvoo, Hancock County, Illinois (*Times and Seasons* II:256).

By that time platting of the town had been completed (Flanders 1965:42), and the streets flanking the printing office had been named "Water" and "Bain." The one circumstance that has caused a great deal of confusion is that in no instance from that time on was there ever mentioned at which of the four corners of Water and Bain the printing office was located.

The original plat of the city followed a grid-iron plan favored by the Mormons and others at that time (Reps 1969:414). It was a simple grid pattern of north-south and east-west streets which were surveyed and platted without regard to the terrain. Thus, natural obstructions such as swamps, hills, and streams were ignored. The Mississippi River and its swampy floodplain bounded the city on three sides, and, of course, the natural features did not conform to the true direction demanded by the plat. Because of this a long series of blocks in the extreme south part of the city were intersected by the river and their useful building areas reduced accordingly. Two such blocks, numbers 153 and 154, were directly across Water Street, south, from blocks 149 and 150. These four blocks, coming together at the intersection, formed "the corner(s) of Water and Bain Streets" (Figure 3). Block 149, on

the northeast, was entirely upon the flat terrace. Block 150, on the northwest, had only its extreme southwest corner cut off by the river valley. Block 154, on the southwest, was platted without lots 3 and 4 and with less than half of lots 1 and 2. Block 153 was essentially non-existent as far as building sites were concerned since only a tiny triangle of land was platted in the northeast corner. The remainder was a precipitous bank ending abruptly in the river or swamp, depending on the stage of the river at any particular time. Thus, for purely physical reasons, block 153 can be reasonably discounted as a possible site for the simple frame structure described as the *Times and Seasons* office. A great deal of earth moving and filling would have been required to prepare a site for a building. This kind of thing apparently was never done in Mormon times. Alterations visible today are obviously of more recent origin. Also, the Hancock County Deed Book HP-624 shows that block 153, lot 1, was owned by the church in 1839 and that it was sold to R. B. Thompson in October 1840. If the printing plant had stood there in 1839, that sale would not have been made because Robinson and Smith were already in their building by then.

It would seem that, if it could be demonstrated that either Robinson or D. C. Smith owned one of the lots in question in 1839, there would be a good indication that the site should be sought on that lot. Conversely, if it could be shown that neither of them owned any of the lots in 1839, it would be wise to search elsewhere for the site of a building erected by them during that year. While this reasoning appears logical from the standpoint of today, there were actually circumstances peculiar to the administration of the Mormon Church that render it fallacious. One was the fact that Joseph Smith and a church committee, in preparing for the great gathering at Nauvoo, purchased a large acreage in the name of the church, later to be parceled out (normally sold) to the faithful as they gathered at the place. In this way much of the area later to be included in Nauvoo remained in church

TIMES AND SEASONS.

"TRUTH WILL PREVAIL."

Vol. 1. No. 7.]

NAUVOO, ILLINOIS, MAY, 1840.

[Whole No. 7.]

A HISTORY, OF THE PERSECUTION, OF THE CHURCH OF JESUS CHRIST, OF LAT- TER DAY SAINTS IN MISSOURI.

CONTINUED.

The first day the saints left Dewitt, they traveled 12 miles, and encamped in a grove of timber, near the road.— That evening, a woman, who had, some short time before given birth to a child, in consequence of the exposure occasioned by the operations of the mob, and having to move her, before her strength would admit, died, and was buried in the grove, without a coffin. There were a considerable number sick, both grown persons and children, which was principally owing to their exposure, and to their having been obliged to live in their wagons and tents so long; and in being deprived of suitable food. No sooner had they started than Sashel Woods, called the mob together, and made a speech to them, saying, that they must hasten to assist their friends in Daviess county. The land sales (he said) were coming on; and if they could get the Mormons driven out, they could get all the lands entitled to pre-emptions; and that they must hasten to Daviess, in order to accomplish their object—that, if they would join, and drive them out, they could get all the lands back again, as well as all the pay they received for them. He assured the mob, that they had nothing to fear from the authorities in so doing; for they had now, full proof, that the authorities would not assist the Mormons, and that they might as well take their property from them as not. His request was complied with, and accordingly the whole banditti started; taking with them, their cannon, for Daviess county. In the mean time, Cornelius Gilliam, was busily engaged in raising a mob, in Platt, and Clinton counties; to aid Woods in his effort, to drive peaceable citizens from their homes, and take their property. After the mob had

left Corrill county, there was ordered out, a part of two brigades of militia, to check their movements. Generals Doniphan and Parks, were in command of them, as it was part of their brigades that were ordered out. The first knowledge that the people of Caldwell or Daviess, had of the mob, coming against them, was the arrival of a body of troops under the command of Col. Dunn, of Clay county, in Far West. As the people of Caldwell, had no knowledge of any troops, designed to come into the place, their appearance caused some excitement. Both the military and civil officers, immediately met them, and enquired into the cause of their sudden appearance in the place without giving previous notice. Their commander gave for answer, that "they had been ordered out, by General Doniphan; to repair to Daviess county, to operate against a mob, which was on its march from Corrill county, to Daviess." This was on the first day of the week. We have not the precise date, but it was in October. The evening following which was Monday, Gen. Doniphan arrived in Far West. In consequence of these hostile movements on the part of the mob, the people of Caldwell had assembled together, to take such measures as the emergency of the case might require.

After the arrival of Doniphan, the authorities made enquiry of him, concerning the matter, and the operations of the mob. He stated that the mob had gone from Corrill county, with their cannon, for the express purpose of driving the saints from Daviess county; and that he was going to operate against them; but he said that his troops were so mutinous, that there was but little reliance to be placed in them. He advised the authorities of Caldwell co. to send out two or three hundred men to Daviess county, to defend the people against the violence intended by the mob; until such time, as effectual measures could be taken by the authorities, to put a stop to their operations: And he also told them, that Gilliam, was collecting a mob, in Platt, and other places, for the purpose of attacking

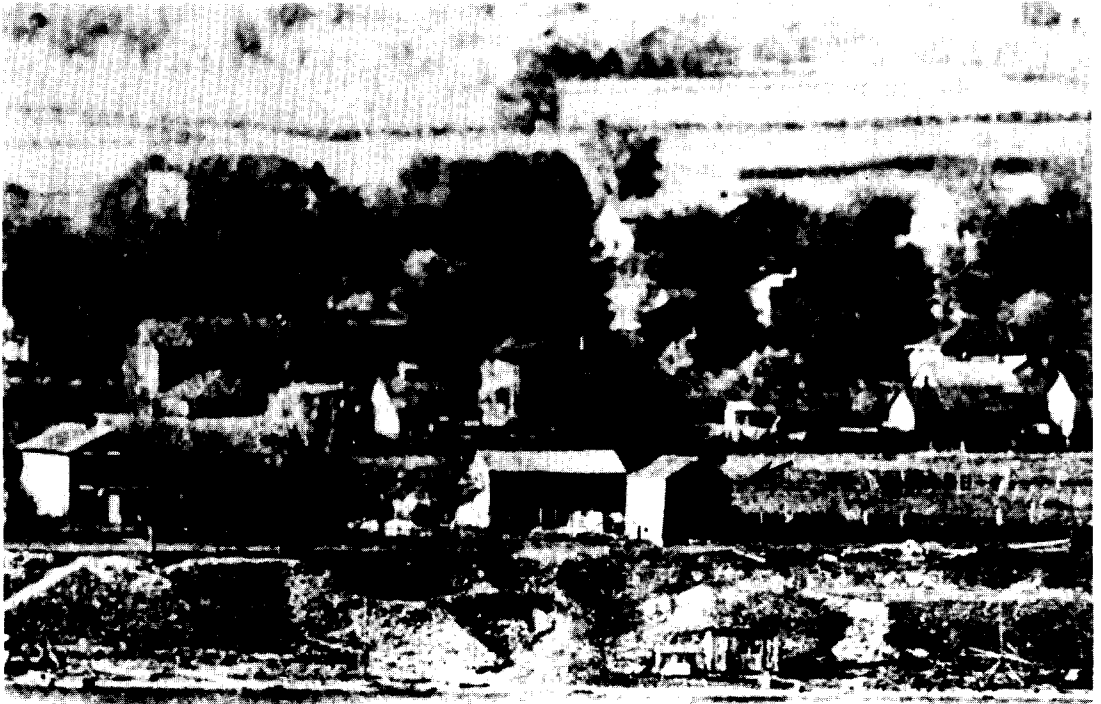


FIGURE 3. The "Corner of Water and Bain Streets." Site of the excavations, block 149, lot 3, is indicated by the arrow. Most of the structures have now been removed. The water's edge is today much farther away and the formerly vegetation-free bank is covered with trees and dense undergrowth. Estimated time of photograph is 1890 (Courtesy of the Audio-Visual Department, RLDS Church).

ownership for a time varying from several months to a year or more. A few lots were never deeded to anybody. More importantly, Joseph Smith, in the name of the church, actually donated city lots to certain individuals. Because of these irregularities, considerable confusion has been introduced into the records. Also, discrepancies and confusion were created in the county records by the Mormons' practice of recording land transactions in their own registry office at Nauvoo, then delaying official recording at the county seat for a long time. Occasionally, the records were not transferred at all during the Mormon period.

The southeast corner of Water and Bain (block 154, lot 2) was platted for several sublots, one of which was donated by the church to Ebenezer Robinson. Interestingly, Robin-

son's transaction was recorded twice—once in Deed Book K, page 90, and again in the same book, pages 90–91. The first entry bears the date of December 11, 1841, and the second of December 11, 1842. Both entries describe the same lot, having a 30 feet frontage on the south side of Water Street. According to Dr. Lyon (1976, pers. comm.), E. Robinson had also, in the fall of 1839, acquired the east one-third of block 150, lot 3, and D. C. Smith had acquired the west two-thirds of the same lot. In this connection, Robinson had the following to say:

In the winter of 1839–40, brother Carlos and myself had each of us a log house built on a lot donated to us by the Church, situated on a block next to the one on which the printing office was located, and moved into the same in early spring. The deed to our lot was signed by Joseph Smith, Jr., and Emma Smith. (*The Return* 2: 258).

Robinson's phraseology here is a bit imprecise, but he seems to be saying both he and D. C. Smith built their log houses on the same lot donated to them by the church. Actually, the lots appear to have been partial but separate ones within lot 3 of block 150. Later, Robinson acquired part of block 150, lot 4, where the third *Times and Seasons* building was erected.

It is interesting that both D. C. Smith and E. Robinson received donations of building lots from the church while Hyrum Smith, upon whose lot the *Times and Seasons* building 2 was built, had to buy his. The reason undoubtedly relates to the fact that the *Times and Seasons*, though ostensibly a private business, was actually only quasi-private. The church maintained a considerable measure of control. This is pointed up by an insertion in the *Times and Seasons* by H. G. Sherwood, scribe for the Church High Council:

The printing establishment, for a time, lingered by reason of long and tedious illness of the editors, but is now in a promissory prosperous operation, excepting a lack of funds needful to defray the inevitable expenses—for who but must know that it requires cash to prepare, and procure a suitable building, materials, paper, ink, and C. to enable them to print the first paper, and who can expect papers sent to them without advancing the pay. . . . The Council requires that notice be published in your paper, that they express their disapprobation to all, and any needless detentions of any monies, that are, or shall be appropriated and intended for the press, or for any other purpose in the Church (*Times and Seasons* 1:56–57).

The role of the church in the *Times and Seasons* was revealed more fully when an unwilling Robinson, as previously discussed, was coerced into relinquishing control of the paper.

Building of his log house enabled Robinson to move his family out of the second story of the *Times and Seasons* building, thus providing more room for the printing business. The latter had quickly outgrown itself and was continuing to expand. The *Times and Seasons* announced in July 1840:

"books", "we want more books" & C., and none could be had: we announce with pleasure that effectual measures are now taking to accomplish the long desired object of getting books once more into circulation (*Times and Seasons* 1:139).

Robinson's move to his log house evidently did not alleviate the space situation of the *Times and Seasons* for long. Thus, in the issue for November 1, 1840, we read:

. . . we have made large additions to our establishment. . . (*Times and Seasons* 2:203).

The nature and/or dimensions of the additions were not mentioned. Obviously, though, "additions" meant additions "in place"—the location remained the same. It is by no means certain that Robinson referred to additions to the building itself; possibly, he was talking about additional services and the equipment to make these possible. Robinson had, only recently, returned from Cincinnati with a supply of the *Book of Mormon* which were to be sold at the printing office. He may, also, have bought equipment for his own book binding business while in Ohio. Such equipment ordinarily consisted of about a dozen hand tools plus a standing press which would have been stationary on a work bench (Tomlinson 1860:99). The space made available when he and his family moved out would have accommodated this equipment with some space to spare for other uses. Obviously, Robinson was devoting more and more of his time to books while turning over the *Times and Seasons* gradually to D. C. Smith. In December 1840 Smith took over as editor to allow Robinson to devote all his attention to "books and fancy printing" (*Times and Seasons* 1:256). There is no indication that Robinson moved his business out of the building at that time.

The county records on block 149, lot 3, contain nothing which helps directly to establish this lot as the site of the second *Times and Seasons*. Of course, it is one of the four possible locations. Two of these already discussed have been shown, from the historical standpoint, to be highly unlikely sites. A careful archaeological survey of these blocks con-

Inasmuch as the universal cry has been "books",

vinced the writer that, from this standpoint too, they were even more unlikely.

Going on to consider other pertinent material, the public library at Carthage, Illinois, has a map book of Hancock County, published in 1859 by Charles Shober, lithographer, of Chicago. This book contains a Nauvoo business directory and a plat of the city blocks where businesses were located at that time—13 years after the Mormons had gone (Figure 4). Block 149, lot 3 has an unidentified building (probably because it was vacant) on the northeast corner of Water and Bain.

It seems clear that block 149, lot 3, was a part of the land initially purchased by the church from a Mr. White in early 1839 and that it had been sold or "assigned" to Hyrum Smith before the time the second printing office was occupied in August 1839.

When Robinson moved out of the upper story of the *Times and Seasons* building in the spring of 1840, he did not mention selling it; that may indicate that he did not own it. Hyrum Smith must have owned it then, for the record shows that the church sold the lot to him—a transaction recorded on December 11, 1841 (Deed Book K:1). Although recorded in December 1841, it was sold prior to that. Also, the *Times and Seasons* for November 1, 1841, refers to Hyrum's "dwelling place" as already present on block 149, lot 3. No convincing evidence of that dwelling was obtained in the archaeological excavations of 1974, which were designed to reveal it. Hyrum's original house at Nauvoo probably was of logs without a solid foundation.

The printing business continued to expand, and it soon became apparent that the business would need more room. Perhaps the first

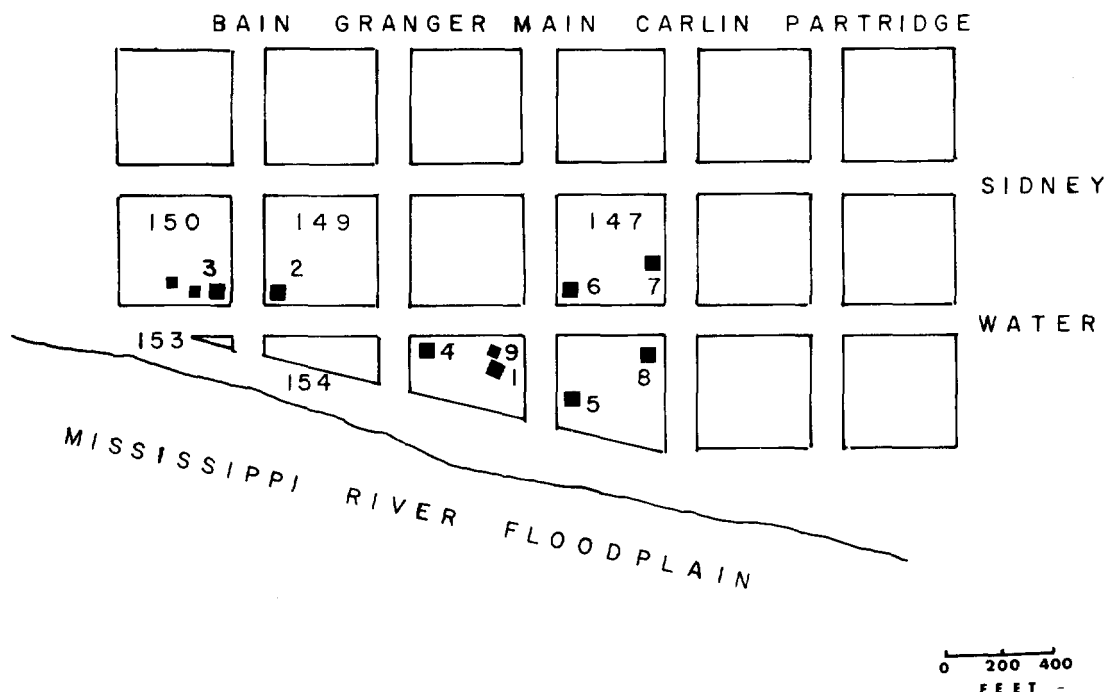


FIGURE 4. Part of the Old Section of Nauvoo (Composite from *Nauvoo Business Directory* 1859 and *Plat of Nauvoo*—engraving by Gustavus Hills, 1842). Some building locations and identifications, including *Times and Seasons* offices, have been supplied by the author: 1, Homestead House (first home in Nauvoo of Jos. Smith, Jr.); 2, *Times and Seasons* 1 and 2; 3, *Times and Seasons* 3; 4, Red Brick Store; 5, Nauvoo House; 6, Mansion House; 7, Turley Brewery; 8, Jos. Smith Stable; 9, Summer Kitchen (first home in Nauvoo of Jos. Smith, Sr.). Parts of the originals 1, 5, and 6 still stand; 4 is now undergoing reconstruction; 9 has been reconstructed; 2, 7, and 8 have been studied archaeologically.

building and the additional space made available about a year later were never intended to serve as anything more than an interim facility. At any rate, in the *Times and Seasons* for December 1, 1841, Robinson reported:

We anticipate an improvement in our mechanical department as we have secured the services of an experienced printer; also, we have moved our establishment into a new and extensive building which we have had erected expressly for the accommodation of our printing, stereotyping and binding business so that our facilities for printing are greater than they have ever been (*Times and Seasons* 3:615).

It can be concluded from this that the move to the new building was made prior to December 1841. Possibly, it was only a short time before, because, if not, it probably would have been reported in an earlier issue. Robinson, later, recalled that part of his history as follows:

In the spring of 1841, I had a building erected suitable for a printing office, stereotype foundry, book bindery and dwelling combined, where those different branches were successfully carried on under my personal supervision (*The Return* 3:302).

The two accounts do not clarify the specific time of the move—only that it was sometime between the spring of 1841 and December 1 of that year. The newspaper item may have been for the purpose of announcing the employment of the “experienced printer,” not, primarily to report the move. Similarly, Robinson does not say the plant was moved in the spring, only that the building was erected then. In this regard it is pertinent to note that Robinson was taxed for “printing equipment” on block 150, lot 4 for the year 1841 (T. Edgar Lyon 1976, pers. comm.). This indicates that the plant had been moved to block 150, lot 4 before assessment time. As usual, neither the *Times and Seasons* nor Robinson’s autobiography gives an indication of where the new building was located. The county records at Carthage, however, contain a rather lengthy description of the land conveyance, including the date of September 13, 1841, and the location: “The South East corner of Lot No. (4) and Block No. (150) one hundred and fifty in

the city of Nauvoo. . .” (Deed Book K:91–92). The southeast corner was a partial lot, being only 50 x 58 feet in size. The seller was Aaron Johnson, who retained a larger, partial lot contiguous on the west and a smaller one contiguous on the north. This appears to be yet another example of a land transaction being recorded several months after the actual sale. A brief statement by Robinson printed in the *Times and Seasons* offers one more insight into the nature of the new establishment:

The building in which it is published was erected expressly for a printing establishment; with spacious rooms, where each branch can be carried on in its own department, without interfering with the others (*Times and Seasons* 3:669).

Robinson continued as editor and owner for only about a year after the move. As pointed out previously, he was coerced by Joseph Smith and the Quorum of Twelve Apostles to relinquish control of the newspaper in February 1842. Willard Richards was church proxy in the transaction, and his name appears in the record as having bought the business from Robinson. The church was the new owner, however, and from then on it made the decisions regarding the editors and, presumably, as to what would or would not be printed. The church assumed formal ownership about 13 months later, on February 23, 1843, when Richards and wife Jeanetta deeded it over (Deed Book N:369). As noted previously Elder John Taylor was the choice of the prophet Joseph and the Twelve for editor. Finally, the *Times and Seasons* had found both a suitable home and an editor who would not stray from the official line. At any rate neither the location nor the editor was changed again until May 15, 1845, when the third and final move was made to the address of Kimball and Main streets (*Times and Seasons* May 15, 1845).

Continuing with the historical documentation of block 149, lot 3, Heman C. Smith, who served as church historian for the Reorganized Latter Day Saints for many years, and was editor of the *Journal of History*, official organ

of the RLDS, described a trip to Nauvoo in 1913 as follows:

We also had the pleasure of conducting a sight-seeing company of eighty-two to the historic places in the city. Landing from the stream ferryboat City of Nauvoo, at the foot of Parley street, the company soon loaded two hayracks furnished by Elder George P. Lambert, while some walked by the sides of the slow moving teams. Proceeding east on Parley to the intersection of Bain, we paused at the site of the Seventys Hall . . . thence south to Water street, where the old *Times and Seasons* office still stands in a dilapidated condition on the southwest corner of block 149 (*Journal of History* 7:8-9).

One may wonder why Heman Smith noted the old dilapidated building on block 149, lot 3, and said nothing about the third *Times and Seasons* across the street on block 150, lot 4. The late Dr. T. Edgar Lyon, historian with the LDS Church, wrote to me (October 9, 1975) that the *Times and Seasons* building on block 150, lot 4 was moved in the 1880's or 1890's. This would account for Heman Smith's failure to mention it in 1913. Lyon furnished a copy of a letter he wrote on August 23, 1966, to Richard P. Howard, General Church Historian, for the RLDS Church. In it he noted that Heman C. Smith did not live in Nauvoo during the Mormon period and may, in his account of the 1913 sight-seeing trip, have been making an assumption or repeating information provided by someone else.

The old, dilapidated building described by Smith was photographed by an unknown person, apparently at about this same time in its history (Figure 5). The photograph was made available by the audio-visual department of the RLDS Church, but there was no record of how the picture was identified to be the *Times and Seasons* office. There is practically no doubt, however, that the building in the photograph was standing on the extreme southwest corner of block 149. A careful comparison of the contours revealed in the picture and those existing at the site today is sufficiently convincing. The only significant change that has been made is a deepening of the road ditch on the west. Otherwise, the slopes compare too closely to be coincidental. The

photograph was not dated but is no earlier than 1901—probably several years later. A telephone line anchor with transparent glass insulator may be seen on the southwest corner eave of the house. The line attached to it appears to be abandoned. A telephone (or electric power) pole may also be seen in the extreme lower left background.

According to a *History of Hancock County Illinois* (1968:426), a telephone company was established in Nauvoo in 1901 and, by 1905, there was a switchboard that could handle 300 lines. The same county history states that the Central Illinois Public Service Company brought electricity to the county in 1912 (1968:107). The *Nauvoo Independent* (September 15, 1909) printed an article describing an explosion in Jacob Richtman's store which was located on the "flats"—that part of Nauvoo situated in the lowlands between the river and the hills. It noted that items of clothing and yard goods came to rest in nearby telephone lines.

The characteristics of the building appear to conform well with the historical description—a small, cheap, frame building, one and a half stories high. It also conforms, in a general way, with the archaeological findings—frame construction, doors on the west and south, clapboard siding, and a roof which appears to be partially covered with tarpaper. Pieces of clapboard siding and tarpaper occurred in the demolition debris.

Robinson gave the dimensions of his building as 16 x 22 feet (*Saints Herald* 33:779). The best available scale in the photograph is the unaltered doorway on the west elevation. Assuming a standard size door width of 32 inches, a proportional dimension of the building's length comes to 21.33 feet, a measurement which is close to Robinson's recollection of 22 feet (*Saints Herald* 33:779). A similar proportion applied to the south elevation comes to 8.93 feet, slightly more than half the width indicated by Robinson and that confirmed by the archaeological findings. The distortion here is evidently quite large. There may

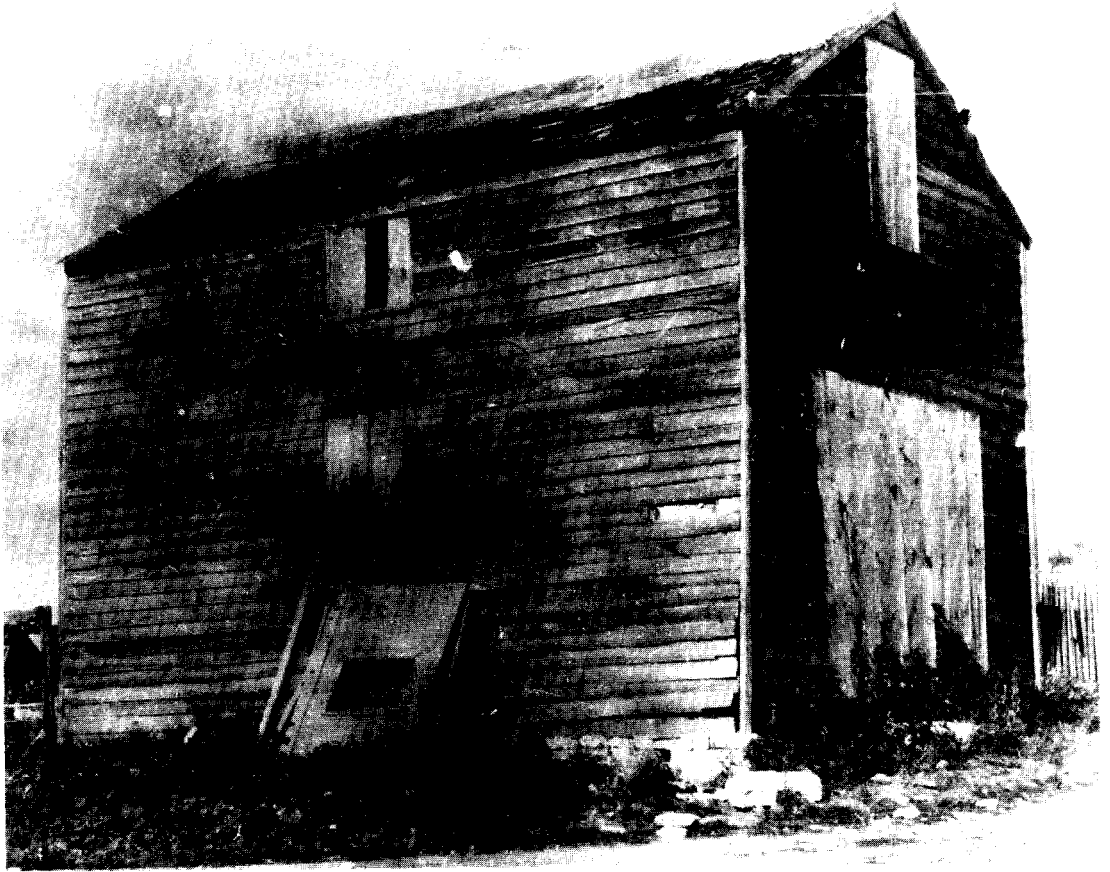


FIGURE 5. The "small, cheap, frame building one and a half stories high" which once stood on the southwest corner of lot 3, block 149. Identified as *Times and Seasons* building 2.

also be some distortion in the long dimension too.

The photograph does not show a chimney nor any indication of where one might have been located. Neither was there any evidence of a chimney base or hearth found in the excavations of either building 1 or building 2. Yet, it is unrealistic to suppose that there was no provision made for heating. The chimney obviously had either been removed at the time the picture was made, or it was on the east side below the roof ridge line, at a low enough position that it failed to show in the picture. This would have been an unusual but not

unique arrangement. There was no sign of a chimney base, so chimneys for both buildings probably sat on brackets attached to the wall and were totally dismantled along with the rest of the structures. Method of heating would have been by stove, not fireplace.

A second photograph, probably taken from a steamboat on the river about 1895, shows the west and south elevations of the building. No chimney is evident nor is any other detail except the unusually tall front door and the upper story windows (Figure 3). Unfortunately, this picture, like the other one, had no accompanying documentation.

The Excavations

Introduction

The testing pattern accomplished by machine on block 149, lot 3 (Figure 6), was not for the purpose of revealing the location of the structures excavated in 1975, since this was already known. Instead, a final attempt was made, at the beginning of the season, to locate remains of the Hyrum Smith house after conventional efforts had failed the previous year. The 1975 attempt also failed, but it provided the negative evidence that there had probably

never been a brick dwelling nor even one with solid foundation on lot 3—other than the ones already described (Waselkov, Bray and Waselkov:1975) and to be described below.

The site excavated in 1975 was on the extreme southwest corner of lot 3. Parts of a foundation were visible prior to commencement of the work (Figures 7 and 8). The RLDS Church had, some years before, erected an interpretive sign on the site stating that it was the site of the second *Times and Seasons* building. The basis for this had been secured both from historical sources and hearsay. The archaeological investigations were to demon-

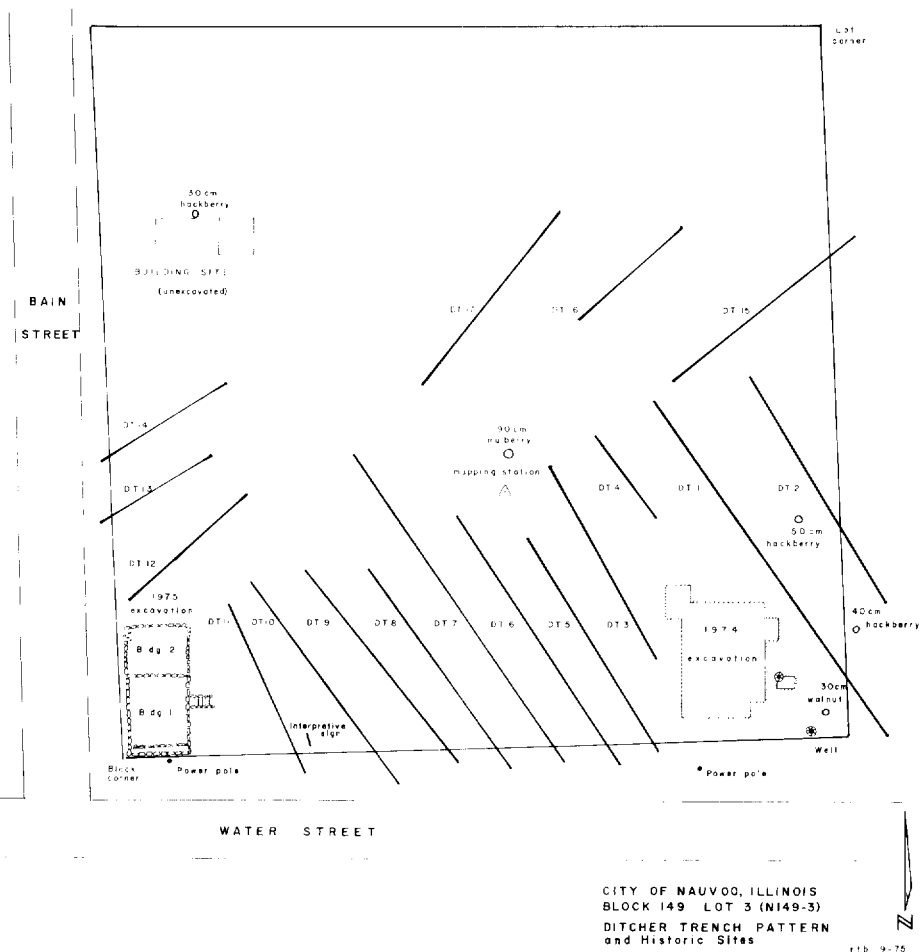


FIGURE 6. Lot 3, block 149. Sites of the 1974 and 1975 excavations are shown. The test trenches were excavated with a machine in an attempt to find evidence of the house of Hyrum Smith after conventional approaches had failed.



FIGURE 7. The site before excavation, July 1975.



FIGURE 8. Excavations in progress. Building 1 basement is in background; north end of building 2, including demolition rubble, is in foreground.

strate the accuracy of the initial assessment, in contrast to the way they had, in 1974, demonstrated the inaccuracy of the location ascribed to the Hyrum Smith house (Waselkov, Bray and Waselkov:1975).

Excavations at the site were conducted in a

fairly conventional manner, within the context of a horizontal control grid of 1.5 meter (approximately 5 feet) squares. These were logical extensions of a grid of 3 meter squares which had been surveyed beginning at the southeast corner of the lot in 1974, in connection with the Hyrum Smith site. Verical proveniences of artifacts were recorded on the assumption that separations might be possible between period styles. Just as in prior instances at Nauvoo, in the absence of stratified deposits, this proved not to be possible. As usual there was a shallow deposit (except in the basement, which was later filled), and mixing had obviously occurred. In effect there was a single natural stratum that contained the artifacts associated with the entire history of the site from the initial construction early in 1839 to ca. 1951 when the basement was finally filled.

Architectural Remains

The remains of two buildings were discovered during the excavations. One set of remains was superimposed on the other and extended well beyond it (Figures 8 and 15). *Building, 1*, the first to be erected, had a stone foundation inclosing a basement. The dimensions of the foundation, measured along the outer edges of the stones, were 15.82 feet east-west and 16.65 feet north-south. The basement was 5.36 feet deep, measured from the top of the top-most remaining course of foundation stones to the sand floor. The foundation had no footing except the first course of stones. These were no larger than the normal run in the rest of the foundation, and their bottoms were flush with the original floor level. The basement had been constructed with a small window on the south (Feature 1) and another on the west (Feature 2). Both basement windows had brick window wells on the exterior of the foundation (Features 3 and 4). The one on the west side remained intact (Figure 9). The other had been disrupted, presumably when the foundation for building 2 was laid. Both basement windows



FIGURE 9. Window well attached to foundation of building 1, west side.



FIGURE 10. Basement window in south foundation of building 1. It had been sealed and, later, partially reopened.

had also been sealed—one with a large boulder and the other with smaller stones and bricks. The latter had been partially reopened at a later time (Figure 10).

The basement had no constructed floor but consisted of the coarse sand and cobbles usually occurring naturally in the area at this depth on the terrace. The basement walls had obviously been extensively patched and reinforced, particularly those parts comprising the entire north half of the foundation (Figure 11). In those parts there appeared fragments of brick, several non-limestone inclusions particularly granite and sandstone, along with notable differences in the lime-based mortar. The basement entryway had been sealed with limestone cobbles and slabs in such a manner that it became an integral part of the foundation (Figure 12).

An exterior entrance to the basement was via a set of limestone steps in a stone-lined stairwell on the east side (Feature 5). Some of the steps were missing, and many of the stones lining the stairwell on the north side had been removed before the stairwell was filled in (Figure 13, a and b and Figure 14).

The foundation on the south end had appar-



FIGURE 11. Part of the north basement wall, building 1. Note the brick inclusion near the middle, and the excess (patching) mortar at lower right.

ently not been patched but was, when excavated, found to be badly slumped outwardly, toward the south. Nearer the base the entire wall bulged noticeably inward. The north foundation also had a prominent bulge toward the interior. Stones comprising the original



FIGURE 12. Part of the east interior basement foundation of building 1. Vertical line in center is the point of contact between the original foundation (right) and the sealed basement entryway (left).

parts of the foundation were generally smaller and more frequently dressed than those stones used in the patching and reconstruction. The great majority were quarried limestone, while many of those used in the reconstruction were unmodified boulders and cobbles that were evidently gathered at places other than a quarry. Both foundations were approximately the same thickness. This ranged from 12 to 15 inches, depending on the width of particular stones. This appears to be a standard width for stone and brick buildings in the area.

Collapsed Chimney

One of the significant external features associated with the foundations was a concentration of whole and partial bricks located on the east side, south of the basement stairwell, and near the southeast corner of building 1 (Figures 15 and 16). The majority of the bricks, with only a few exceptions, were lying on their narrow edges and were in juxtaposition. In most instances, mortar was still in place between the butted ends and the adjacent faces. The upper,



FIGURE 13. a, The stairwell, looking west toward the basement; b, Basement stairwell. View is downward and toward the west. The basement floor level step had been partially removed. Steps 2 and 3 are intact. The south bulkhead appears at extreme left, and the basement wall in background.

narrow surfaces of several specimens had remnants of plaster remaining. Traces of whitewash over plaster were observed on the upper, narrow surfaces of four bricks, particularly on two specimens which had a relatively complete covering of whitewash over thin plaster. Both

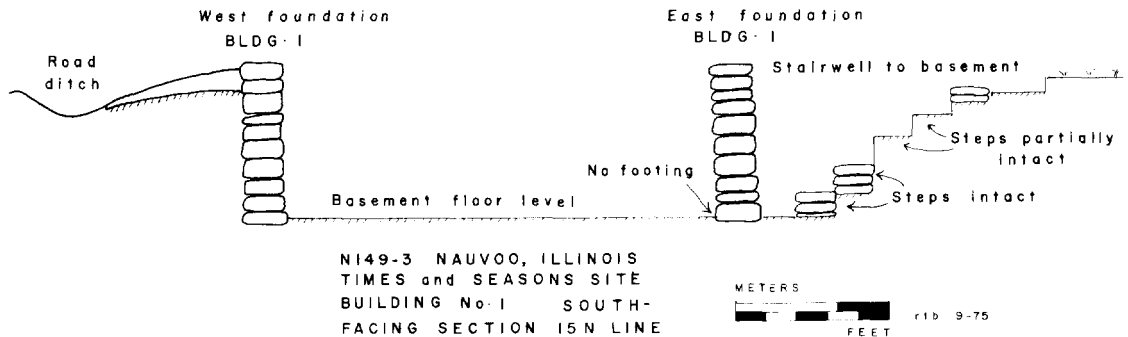


FIGURE 14. Building 1: south-facing section through 15N line, showing stairwell.

north and south from the concentration were scattered bricks and chunks of mortar. In view of the orientation of the bricks—the fact that many were still mortared together and that some retained evidence of plaster and whitewash—there can be only two reasonable hypotheses to explain their existence. One is that the concentration represented a collapsed chimney which was exposed on the interior of the building, making plastering and whitewash desirable from the standpoint of a finished appearance. The other is that they were part of a collapsed wall. The chimney is considered to be much the more likely possibility. There were too few bricks for them to be the remains of a wall, even if it be assumed that many bricks were salvaged. There were barely perceptible traces of soot on the undersides of the bricks, as should have been predicted had they been flue liners. Finally, the heavy concentration of bricks and mortar in this limited area and their general scarcity elsewhere point toward the chimney interpretation. An apparent contradiction to this was the abundant mortar and relatively plentiful brickbatts in the area of the north half of building 2. This seems to have been the area in which the salvage of both buildings was loaded out—a circumstance that would help explain the greater amounts of brickbatts and mortar there.

It is pertinent here to point out that much of the masonry mortar in Nauvoo buildings is indistinguishable from that used as a base for

plastered walls. Thus, it is questionable whether the mortar found here was all from bricks or stone or whether some was from lathing. Unfortunately, no piece could be found, other than those in the concentration, which clearly indicated its former position in a brick or lathing situation. The irregular shapes of the mortar fragments and the lack of brick or lath impressions point toward the interpretation of its having been stone mortar. Because of the proximity to the surface of the brick concentration, and the fact that they, in falling, had covered artifacts discarded previously, would indicate that the chimney was part of building 2. It was evidently a narrow chimney situated toward the south end of the building on the east side, well below the gable or ridge line. Lack of a base indicates that it was a bracketed chimney designed for a stove.

Stratigraphy of the Basement Fill

The basement had been artificially filled to a level approximately flush with the tops of the basement walls. The final phase of the filling had evidently been for the express purpose of leveling the depression with the surrounding surface so that the area could be more easily mowed. Excavations determined that the upper part of the fill was composed of a light brown sand containing some humus and an occasional flat, limestone pebble or cobble. Also, in the fill were rather numerous flakes of

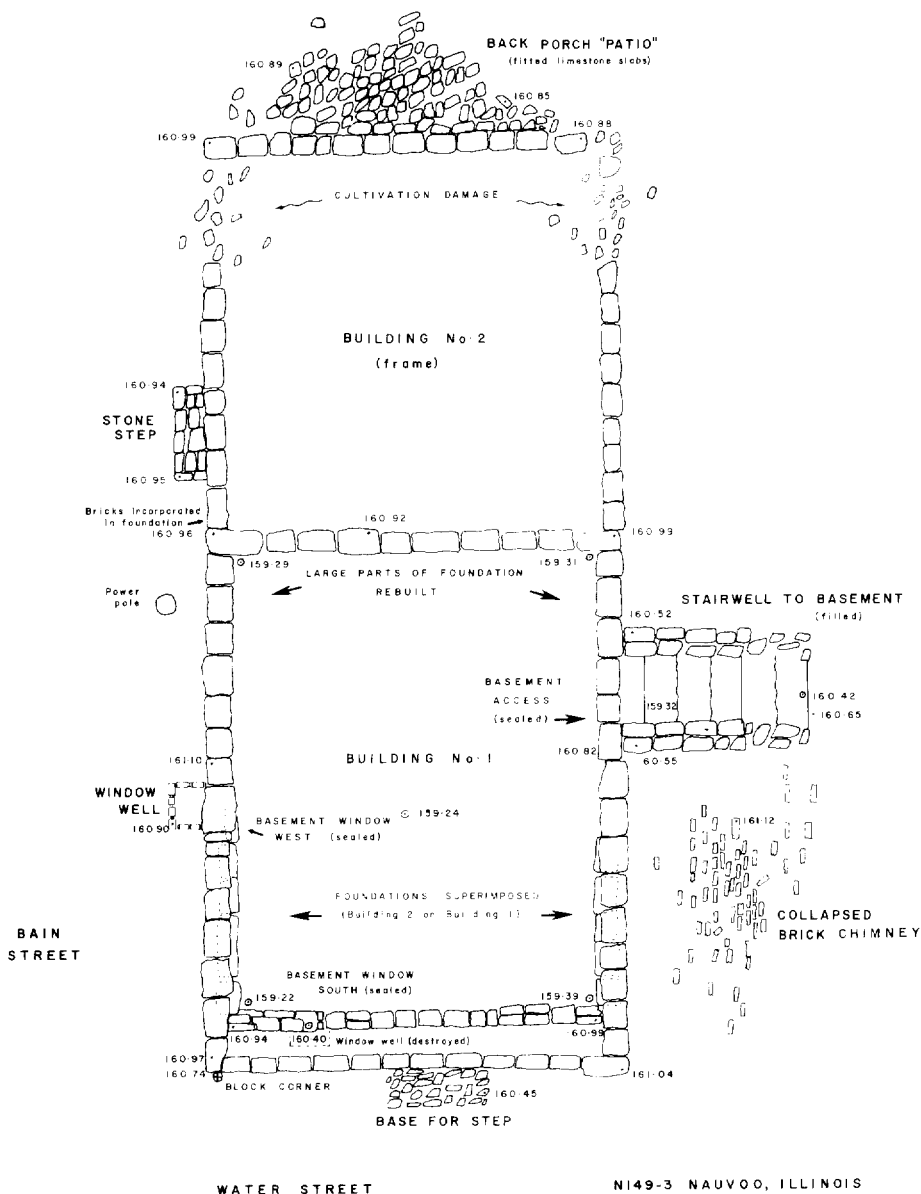


FIGURE 15. Buildings 1 and 2; Plan. Elevations are in meters MSL.



FIGURE 16. View of the southeastern quarter of the excavation, looking SSW. Location of the undiscovered (at that time) stairwell is at extreme lower right. Portion of a collapsed brick chimney is in center (note plaster and white-wash on two bricks). In upper right may be seen the relationship between the south foundations of buildings 1 and 2. Worker at upper left is excavating a lime-slaking pit.

chert—some obviously worked by man: parts of three chert projectile points, chert and sandstone hammerstones, and part of an occipital bone from an adult (probably male) human. It was obvious that this fill had been gathered from a prehistoric Indian site located, probably, on a terrace or flood plain of a stream.

Underlying the most recent layer was the major part of the basement fill, consisting largely of a wide assortment and large number of artifacts of the period 1926–1951. These included a great many bottles, jars, cans, brick and tile, sheet iron, barrels, tub and buckets, and part of such contrivances as a chick incubator and a kerosene cooking stove. A 1926 license plate came from the original floor level, and a 1951 license plate came from near the surface—providing rather precise dates for both the beginning and end of the junk-deposit era. The upper layer of sand was deposited after 1951 (Figure 17).

The original floor of the basement was only

the coarse sand and flattish cobbles of the terrace. There apparently never was another floor.

Probably at the time building 2 was dismantled after 1913, several 1 x 10 inch planks, some with sizable pieces of tar paper adhering, had been deliberately placed on the sand floor—for what reason is conjectural (Figure 18—building 1).

Building No. 2

The east and west foundations attributed to the later of the two buildings were laid directly upon and paralleled the full lengths of the east and west walls of building 1. This occurred after the removal of building 1 and after the latter's basement windows and exterior access had been sealed and large portions of its basement walls had been rebuilt. The north wall of building 2, however, was not coincidental with the north wall of building 1 but, instead, was located 14.77 feet farther north. Similarly, the east and west walls of building 2 continued southward 18 inches beyond those of building 1, to the edge of and slightly overlapping the lot line where they turned and continued east-west to form the south foundation. Both the north-south and east-west foundations parallel the lot lines. The foundations of building 2 were noticeably different from those of building 1; in particular, they were composed of larger, rougher stones, and they contained a number of whole and partial bricks. Building 2 had no basement of its own but spanned that of building 1. It did have several external features.

Steps

On the west side, 12 feet from the northwest corner was a step constructed of several pieces of limestone stones of modest size. The step was 12 inches wide, 39 inches long and was laid in front of a door formerly in that location (Figures 18 and 19). Along the outer border of the south foundation of building 2 was evidence of a second step. It consisted only of a heavy

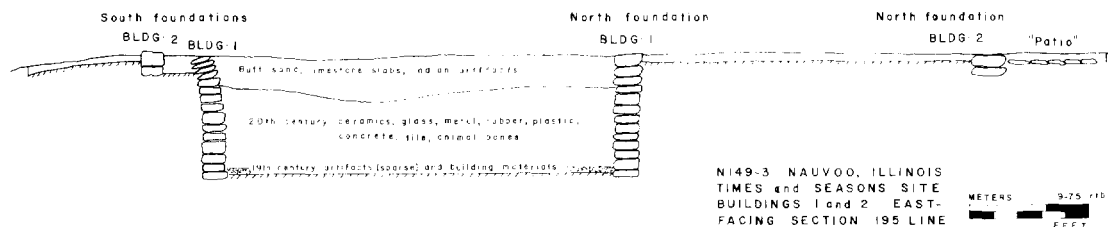


FIGURE 17. Buildings 1 and 2; East-facing section along 195W line.

concentration of thin sheets of limestone which had exfoliated from a larger piece or pieces. These remains are believed to be from a single large rectangular stone which had previously been moved.

Patio

Contiguous to the north foundation of building 2 on the exterior were the well-preserved remains of a patio paved with closely-fitted limestone slabs. Parts of the patio and the extreme north ends of the east and west foundation had been disrupted by cultivation practices in later years.

Lime Slaking Pit

Located 6 feet off the southeast corner of the south foundation of building 2 was a 2 x 1 feet pit, 18 inches in depth. It had squared walls to which clung thin patches of lime. A thicker blob of the same material lay in the bottom of the pit. This feature was similar, except for smaller size and its meager content, to those discovered at the Turley site in 1973 (Bray 1974:48) and is interpreted as a place to prepare slaked lime to be used in masonry mortar.

Times and Seasons Site No. 2, Block 149, Lot 3
 "—A Small, Cheap Frame Building—"

The main problem posed by the archaeological findings is the physical relationship between the two superimposed foundations *vis a vis* the historical accounts. When the newspaper office was moved from the warehouse to

the frame building that Robinson and Smith built, or had built, no mention was made either of a basement or of an existing building on the site. Instead, Robinson stated that they had a small cheap frame building put up—one and a half stories high and 16 x 22 feet in size (*Saints Herald* 33:779). The shorter dimension corresponds with those of the basement foundation which measured 15.81 x 16.65 feet. However, the longer dimension of 22 feet, given by Robinson, is about 10.5 feet short of the 32.65 actually measured for building 2. This, of course, could have been due to a one-digit typographical error in *Saints Herald* (a 2 for a 3) or simply to Robinson's faulty memory or inattention to an unimportant (to him) detail recounted some 40 years after the fact. Pertinent in this regard is the post-1901 photograph of the building on which the length measures 2.35 times the width. Taking the 16 feet dimension as accurate—both history and archaeology agree on that—the longer dimension would then be about 37.60 feet. This is not consistent with the archaeological findings of 32.65 feet. The discrepancy might be due to distortion in the photograph. A more likely hypothesis, however, is that formerly a lean-to or porch covered the patio. Such a structure probably would not have had a solid foundation—none was found in the excavations. If it had been large enough to cover the patio, this would have added the extra 5 feet.

Robinson's statement concerning additions made in late 1840 might be used to explain the difference between his 22 feet and the actual measurement of 32 feet. That is, about 10 feet were added to the long dimension of the build-

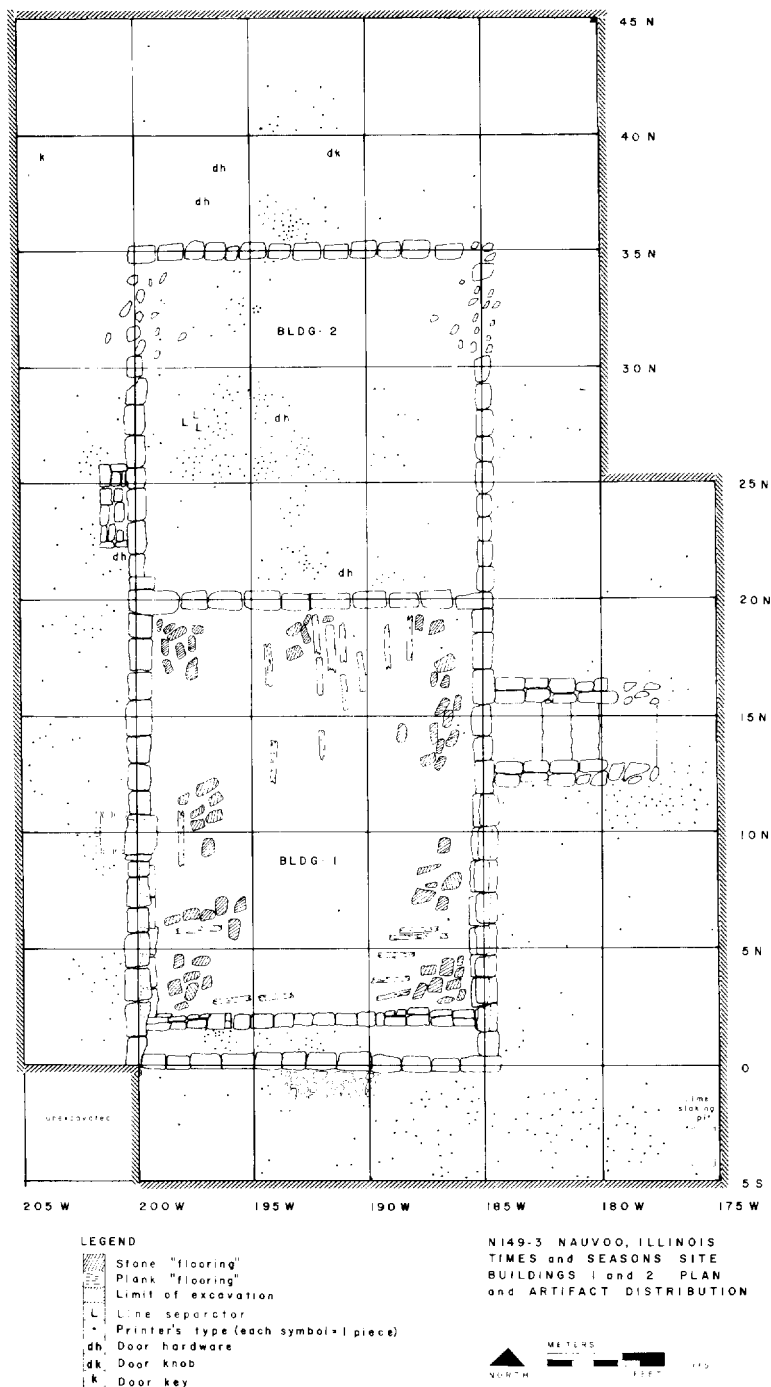


FIGURE 18. Buildings 1 and 2: Plan and artifact distribution. Only printers' type and building materials are indicated.

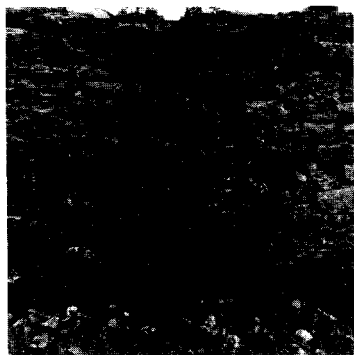
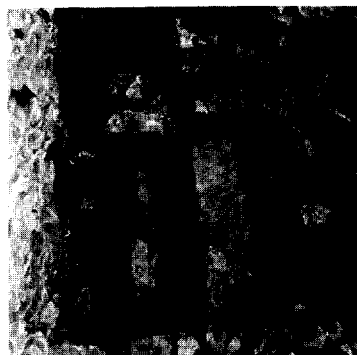
**A****B****C****D****E****F**

FIGURE 19. A: Times and Seasons Buildings 1 and 2 during excavation (looking S); B: Collapsed brick chimney—building 2 (looking SSW); C: Part of east interior wall of basement; D: Remains of basement entryway (looking N); E: Finished excavation (looking S); F: Finished excavation (looking W).

ing according to this explanation. However, this cannot be reconciled with the fact that there were remains of two buildings on the site. John Lund, of Kansas City, consulting architect in the project, agreed with the writer when he said that he could conceive of no way to explain the situation as revealed in the excavation except by the existence of two successive buildings (1975, pers. comm.). Robinson's "additions," then, were probably not additions to the building but to the equipment and services associated with expansion of the business.

The archaeological findings prove there were two buildings on the site—one built, used, and razed before the other was erected. It was pointed out that, before building 2 was erected, the builders were evidently obliged to make extensive repairs to the basement walls. It appears that the damage to the foundation was sufficiently great that the superstructure would have also been seriously damaged.

The time of construction of this building and who was responsible for its construction are unknown. There were several persons who spent at least some time at the Des Moines Rapids prior to 1806, and any one of them could have erected the building. The first person was Louis Honoré, a Creole trader authorized by the Spanish authorities at St. Louis to settle there in 1799. After the Louisiana Purchase, President Jefferson appointed William Ewing as Agricultural Agent to the Sauk-Fox Indians. Ewing relieved Honoré in 1805, and Ewing, himself, was relieved in late 1807 by Nicholas Boilvin, an experienced trader, who had spent years among the Indians of the Upper Mississippi (Jackson 1957:4).

Evidently, at least two buildings were erected by Honoré and/or Ewing as two are shown side by side on the Zebulon Pike map of 1806 (Tucker 1942). However, these are probably the ones which later became known as the Homestead House of Joseph Smith, Jr. and the home of his parents. The latter structure later became known as the Summer Kitchen (Bray 1972:4-5). Presumably, Boilvin had lived in one of these houses.

The Pike map does not show a third house (the warehouse) probably because it was not there until after 1806. Even so, it could have been there some 32 years before Robinson and Smith arrived in 1839 and could, of course, have been in poor condition because of age alone. The deterioration could also have been one of the not so rare instances of incompetent construction, resulting in the severe bulging and collapse of a large part of the foundation. The fact that there was no footing and the possibility that the superstructure was of stone would, when compounded by poor workmanship, have created a structural stress situation that could easily have damaged the building beyond repair soon after it was built or even during its construction.

Both Robinson and Smith were ill during most of this time, and it is entirely possible that they had little or nothing to do with the construction work. Perhaps they would have been more concerned with getting rid of the damp basement to which they (for probable reason) may have attributed their illness.

There is no evidence that the building continued to be used for the printing operation after late 1841. It was then or somewhat before that when the plant was moved across the street to block 150, lot 4, to "a new and extensive building" (*Times and Seasons* 3:615). Hyrum Smith had bought block 149, lot 3, from the church and, when the building was vacated by the printing plant, he presumably took possession of it for his own use. What use he made of it is unknown, but it could have been his dwelling. Dr. T. Edgar Lyon, in a letter to the author dated October 9, 1975 stated:

From what I have been able to learn, Hyrum Smith lived in either a log house, or one built of clapboard—no doubt with several rooms, as he usually had quite a number of relatives living with him. His widow stated that at the time of his death, Hyrum had nearly enough red bricks assembled to build a large brick house. It was never built—apparently she traded them for her outfit to start for the west in 1846.

If Hyrum was living in a small log house prior to the spring of 1841, he may have welcomed the opportunity to move into a larger, 16 x 32 (or

22) feet, 1½ story house. A more substantial brick house, more befitting his community stature, was evidently contemplated, but the press of events and his untimely death in June 1844 were probably responsible for his plans going unrealized.

Most of the historical and archaeological data support the conclusion that both buildings on block 149, lot 3 were used as printing establishments. Yet, there is one troublesome fact which makes even the existence of building 1 before 1839 and its demise by August of that year difficult to explain. This is its orientation and position with respect to the blocks and lots. If building 1 was there when the first Mormons arrived, it seems strange that it would have been so situated and directionally oriented that it would have been square with the plat made later and, particularly, that it would have been on the exact corner of one of the lots. If the survey of May-June 1839 was *begun* at one of the corners of that building, it *would* have been consistent with the plat, but the traditional beginning point of the survey is on the southwest corner of Water and Main streets—two blocks east. The writer was unable to find any original source to support the Water and Main beginning point. It is possible that the surveyor did begin his work at the southwest corner of an “old warehouse” which was oriented in a true north-south direction. It is further possible that a building erected before the Mormons arrived would have corresponded with true north direction even though it was situated in what was, in effect, a wilderness. Most builders traditionally orient their structures with true directions. It is probable that the east-west road which later became Water Street was in existence before the time of the plat, and it is reasonable to assume that any building erected along it would have faced it squarely, particularly if it were to serve as a warehouse. These hypotheses, if successfully tested, would explain the apparently ambiguous evidence. In spite of the seemingly contradictory evidence, the archaeological findings are most compelling.

The foregoing demonstrates, beyond reasonable doubt, that of the four corners of Water and Bain streets, only the northeast and northwest corners could have been the locations of the *Times and Seasons* newspaper offices. The northeast corner is substantiated by the discovery of large quantities of printers type there (see below) and the northwest corner by the records of a move of the printing plant about a year and a half after the initial occupation, and the purchase by Robinson of part of block 150, lot 4 early that year. It should be remembered that the site of the fourth office has been shown to have been located elsewhere. The sequential locations are summarized in Table 1 following.

It is pertinent to ask whether there were any printing operations, other than those discussed to this point, that could have occupied this location and so have been responsible for printers' type found there. Dr. Lyon, foremost authority on early Nauvoo history, supplied a list of such operations that existed after the Mormon period. There were none prior to the Mormon period. This information is summarized in Table 2.

Lyon went on to say, “It would appear from this that none of these shops would have been where you found the type” (1976, pers. comm.).

In summary, both the historical and archaeological evidence, for the most part, supports and in no instance refutes the conclusion that the parcel of land that later became block 149, lot 3 contained the sites of both the second *and* the first *Times and Seasons*.

Printers' Type at block 149, lot 3:
The “Clincher”

As is often the case at historical sites, relatively few of the artifacts could be related to the period of greatest historical interest. Some of those that could, however, provided necessary substantiation for the conclusion that the site was that of the first and second *Times and Seasons* printing offices. The most numerous of these were 571 pieces of printers' type dis-

TABLE 1
LOCATIONAL SEQUENCE OF TIMES AND SEASONS

Locational-Descriptive References	Dates	Locations	Supportive Data
<i>Times and Seasons</i> No. 1 "--in the basement of warehouse--"	May-August 1839	Building 1 of the two excavated at lot 3, block 149	Writings of E. Robinson. Discovery of printers' type in 3 concentrations indicating relationship to Building 1
<i>Times and Seasons</i> No. 2 "--a small, cheap frame building--" "--at the corner of Water and Bain--"	August 1839 to Spring or Summer 1841	Northeast corner of Water and Bain (Block 149, Lot 3)	Discovery of printers' type associated with remains of Building 2. Change of masthead and addition of imprimature in <i>Times and Seasons</i>
<i>Times and Seasons</i> No. 3 "--a new and extensive building--" "--the corner of Water and Bain--"	Spring or Summer of 1841 to May 1845	Northwest corner of Water and Bain (Block 149, Lot 3)	Robinson's purchase of a lot. Record of a move during the same period
<i>Times and Seasons</i> No. 4 "--the corner of Main and Kimball--"	May 1845 to February 1846	Block 117, Lot 4	Change of imprimature and masthead of paper. Report on the excavation north building, <i>Times and Seasons</i> complex (Harrington 1968)

TABLE 2
CONTEMPORARY AND POST-MORMON NEWSPAPERS AT NAUVOO

Name of Newspaper	Location	Dates
<i>The Nauvoo Expositor</i>	Main Street	June 1844
<i>Hancock Eagle</i>	Main and Kimball complex (old <i>Times and Seasons</i> No. 4 building)	April 1846 to August 1846
<i>Nauvoo New Citizen</i>	Same	December 1846
<i>Hancock Patriot</i>	Initially at Main and Kimball—later at "corner of Partridge and Munson Streets"	1847–1850
<i>Popular Tribune</i> (Icarian paper)	Corner of Partridge and Munson Streets	January 1851 to ca. 1855
<i>Nauvoo Democratic Press</i>	"Old Vernon Schneider residence—first ward"	1858–1860
<i>Nauvoo Independent</i> (later, ca. 1877, <i>Nauvoo Grapevine</i>)	"uptown"	November 1873 to ?
<i>New Nauvoo Neighbor</i>	Present-day business district	1974–present

covered in and about the remains of the two structures. Because these are of special significance to the objectives, they are treated separately and more extensively than the remainder of the artifacts. A standard anthropological approach to classification of printers' type would be inappropriate for the reason that the physi-

cal attributes of type are historically documented and understood. These are discussed later. A presentation of the basic facts appears as Table 4. The presence and distribution of these types are the most significant of the empirical data supporting authentication of the site as two of the *Times and Seasons* offices.

Initially it was supposed that a careful comparison of the types, particularly galley proofs printed from them, with existing copies of the *Times and Seasons* would help establish their relationship to the paper. At least, it was reasoned, it would be possible to tell if the paper was *not* printed with them. This hypothesis, while reasonable, proved impractical to test adequately for several reasons. One was the fact that not only the paper but several other things were printed there. Another was the relatively high percentage of the type which was broken or irreparably bent so that it could not be set and, particularly, the large quantity of it on which the characters were damaged or worn so that clear impressions could not be made. Yet another, and perhaps most important, problem is the fact that there is not enough difference between the majority of type faces. The similarities between various members of the same type family are, in fact, so great that oftentimes only experienced typographers are able to tell them apart. The broad divisions are more readily distinguished. Thus, it was found that all the type recovered belonged to the family referred to as "roman." A considerable percentage of the type characters (Table 5) is the same measured size as that used in the *Times and Seasons*, *The Wasp*, and the *Nauvoo Neighbor*. All of these were printed primarily in 6 point, but poems, hymns, Psalms, and occasionally other insertions appeared in 4 point type. Galley proof (Figure 20) of the type recovered in the excavations appears to be identical to that used in the three papers.

The majority of the printing type specimens were discovered *in situ* and plotted individually by the excavators. About 10% were later retrieved from sifter screens. All specimens were plotted on the site map (Figure 18). The distribution is illuminating and helpful in interpretations. Heavy concentrations of type were discovered in seven restricted areas (Figure 18). Two concentrations were found closely related to two known accesses: outside the basement stairs on the east side of building 1 and outside

the doorway on the west side of building 2. Four concentrations were near to *suspected* doorways (where doorways would normally be): the outside (south) end of building 2, on the patio at the north end of building 2, the rear (north) end of building 1, and between the two south foundations of buildings 1 and 2. The seventh concentration—the largest of all—was nearer to the west door of building 2 than to any other constructional feature, but it was within the foundation and within normal sweeping distance of a hypothetical rear door of building 1. In three instances the concentrations were to the left of the doors or suspected doors.

This could indicate that discarded and lost types were simply swept out the doors along with the dirt and trash, by a right-handed sweeper. This explanation would not apply to the type concentration found near the right (south) side of the basement stairwell. It could not have been swept *up* the stairs from the basement but was undoubtedly carried up and dumped there. Its close association with the basement stairwell is one of three significant circumstances relative to the interpretation that the basement of building 2 was used in connection with the printing operation. A second is the discovery of pieces of type on the original floor of the basement, and a third were the concentrations of type in and near the basement windows.

Despite the most careful attention paid the contents of the basement stairwell, no printers' type was found there, either in the fill or on the steps. Had types occurred on the basement stairs it would have strengthened the argument that the basement was used in the printing operations. The fact that only one issue of the paper was printed in a basement could easily account for the scarcity of type found on the basement floor—how much type might be lost in so brief an operation? The question cannot be answered, yet it is certainly true that the shorter the time that the business was conducted, the less likely that many types would have been lost and discarded. The move of the printing shop from the basement to the ground floor

FGHISTWZa defhikmoprstuy..19\$TVbelpl—

dls.10 Y

AOSHidio

vd3l.,f

AFIOTaehinnncoprstuvwy.—iist

laegmuorsswa

UGHLaentou



J "



FIGURE 20. Galley Proof of Selected Type Specimens (the lack of clarity of some imprints is due to worn or marred characters).

of a new building would have been a logical time for sorting and discarding *en masse* (at the top of the basement stairs) those types that appeared damaged beyond recall by their earlier experience in Missouri. Again, the assumption cannot be tested, but it appears to be the most logical explanation available.

Recovery of significant concentrations of type in and near the basement window well on the south end of Building 1 (*inside* the foundation of Building 2) is almost equally convincing evidence of use of the basement for printing. These types could hardly have come from the Building 2 operation since the area in question was covered by the floor of Building 2 (Figure 18). The greatest number of types were found in the window well, and it appears that they were either discarded deliberately through the window or, more likely, that they were placed on the window ledge and were never retrieved.

Outside the structure type was found in 18 of the 23 excavation units (1.5 meter squares) contiguous to the two foundations. It also oc-

curred in six squares contiguous to the north and south foundations of building 1—these being *within* the foundations of building 2. Thus, in addition to the areas of heavy concentration, there was a wide, but generally sparse, distribution of type, including more than a few specimens, near the exterior of the two basement windows. Reasons for the apparent careless discarding of type have been discussed. It appears that explanations for the heavy concentrations in particular areas are valid. The wider distribution is harder to explain. Only a small part of the north end of the foundation complex had been cultivated—the remainder was not disturbed by the plow nor, as far as could be determined, by any other agent. Also, it is by no means established that cultivation results in significant horizontal displacement of subsurface objects. Objects as small as a piece of printers' type would probably be even less subject to that phenomenon than larger ones. It has been shown that building 2 remained standing until after 1913, but its uses during the period 1843–1913 are not indicated by historical accounts. The quantity and time range of household artifacts discovered would indicate the building was used as a dwelling during much of that time. If so, the old type that might have remained in the building would have been swept out at an early time and thereafter could well have been indiscriminately scattered by playing children, muddy feet, scratching chickens, and occasional landscaping activities. Apparently, little of the latter took place as the sizable mound caused by collapse of the brick chimney remained undisturbed.

Printers' Type: A Discussion

Contrary to commonly held opinion, invention of printing type was not made by Gutenberg in Germany but by the Chinese more than 1000 years before Gutenberg's time. Initially, this was done with blocks of wood, cut in relief, inked, then pressed directly upon paper—which the Chinese also had independently invented by about A.D. 100. By about A.D.

1300, the Koreans had developed individual relief characters in bronze. The Koreans later came close to developing true typographic printing but failed to progress beyond primitive hand-casting of their characters. This was probably due to the fact that they had no alphabet with a limited number of characters. The job of producing thousands of ideographic characters would have been formidable. Another factor limiting the development of printing in China and Korea was the lack of incentive; there was little that could not be done in manuscript and normally only official decrees which were recorded permanently. In any case only a fraction of the populace could read.

In 15th century Europe a 24 letter alphabet was available and there remained only a satisfactory method of casting the characters in relief. The main incentive there was the need for printed bibles to relieve the monks from the monumental task of copying manuscripts. Sand casting was attempted in Holland but was found to be unsatisfactory because of its extreme slowness and the crude nature of the product. Johann Gutenberg of Mainz, about A.D. 1440, began experimenting with methods of producing type efficiently. His success came with discovery of a combining a mold with its matrix. A typographic engraver engraved a letter in low relief and in reverse on the end of a hard metal punch which was then struck into a flat piece of softer metal, such as copper. The intaglio positive letter thus produced is known as a *matrix*. The matrix was then placed in the bottom of a precisely constructed mold capable of casting bodies of metal of the same height but which could be horizontally adjusted to accommodate the varying widths of our alphabetical characters. This was known as the adjustable type mold and, when combined with the metal matrix, was an invention of first rate importance in western printing. It enabled the rapid production of type bodies having precise dimensions. Gutenberg, then, was a pioneer in mass-production: the production of thousands of

exactly similar relief characters on the ends of metal bodies. This precision is a necessity in typographic composition because the type bodies, when composed side by side in the printer's stick, must fit exactly together along their vertical aspects and present an absolutely level upper surface where the characters appear. If a type body is irregular along one edge, which could result from a poorly constructed mold or from an improper casting, it will not fit regularly against its neighbor in the line of composition, and the result will be a gap between it and adjacent letters in a word. Similarly, if it is a micromillimeter too short or too long, its impression, when compared to those of its neighbors, will be somewhat blurred or missed altogether. Spaces, of regular dimensions, between words in a line, are attained by thin, "blank types" called *spaces*. They are slightly shorter than the types with characters so they do not print when the impression is made. Longer gaps in the composition appear at the beginning and end of lines. Thicker spaces called *quads* are used to fill these spaces (Moran 1973:17-18).

The metallic alloy from which types were made is normally composed of varying proportions of the elements tin, lead, and antimony. In weight and in general properties, it is similar to pewter. It is soft and somewhat malleable, making the types subject to bending and rapid wear. These circumstances caused individual types to be discarded frequently; once a type was bent it would not fit properly, and if the character became scratched in cleaning or worn excessively, it could not be expected to produce a quality imprint. Also, the small size made them difficult to see after being accidentally dropped among dirt and trash on the floor. These characteristics, plus their relatively low cost, caused busy compositors and printers, who were trying to meet deadlines, to ignore dropped types. The result was a fairly rapid accumulation in the trash of damaged and undamaged type.

The alloy used in most type casting was evolved as a result of experience in selecting

desirable characteristics relating to production and to the finished product. One property, probably of minimal significance to the printer, but important to archaeologists was its resistance to corrosion. If they had been cast from iron, they may have done well as long as they stayed indoors, but if they had been exposed to moisture and/or corrosive agents, such as salt, they would soon have rusted into unrecognizable blobs. The ordinary type alloy is subject to corrosion but at a much slower rate than iron or copper and their alloys.

Individual type bodies have a number of specific attributes which are known by name. Nomenclature of type appears here as Figure 21.

Different type faces, that is the style and characteristics of the characters themselves, are related to the artistic, social, and political milieu within which they originated. They are not, nor have they ever been, simply clear-cut letters capable of producing legible imprints. Not only did engravers exercise the best of their skills to produce precise lines, but they also were strongly influenced to design their letters in accordance with the popular modes of artistic expression of their day. Thus, within particular historic periods, similar design elements appear in such disparate areas as architecture, ceramic decoration, and printers'

type. A pragmatic explanation of "why new type faces create printing" was given in a leaf printed by the American Type Founders Company.

... we keep on issuing new faces because the printer's customer wants them, and all live printers want him to want them. It is scientific business. It is the recognition and exploitation in business of a tendency of human nature (Annenberg 1975:49).

From a chronological standpoint, it seems that printers have been, historically, as much inclined as others to use a variety of contemporary styles as well as a wide selection of styles evolved in an earlier day. Repeated revivals of old styles of type by manufacturers, and the frequently minute differences that are hardly recognizable by any but the experienced typographer, complicate what otherwise would be a simpler job of classification.

Styles of type are usually, though not always, named after the person who introduced them. Thus, Garramond, one of the more frequently used types today, is a minor variation of the original style introduced by the Frenchman, A. Garramond in 1640. Bodoni, another family of type widely used today, was designed by Giambattista Bodoni, mostly between 1770 and 1788.

A universal accoutrement of printing, particularly during the Victorian age, were the ornaments and borders used to "illuminate" pages of printed matter. These are, in essential respects, the same as a piece of lettered type except instead of bearing a letter, numeral, or mark of punctuation they have one of a wide variety of designs, often intricate and involved. These ranged from clear-cut classical designs, through cherubs, death heads, and highly detailed humanistic scenes, to intricate, geometrical, and nonsensical-looking designs of amazing variety. During the Federal and Classical Revival periods in America (ca. 1790–1860), the eagle, eagle-shield, lyre, and urn were common border motifs appearing in typographers' specimen books (Updike 1962: 157). Such decorations appeared occasionally

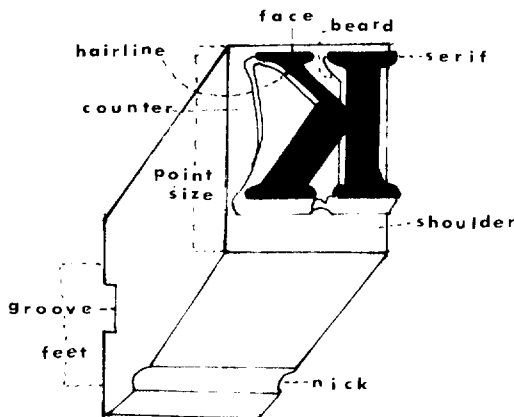


FIGURE 21. Type Specimen Nomenclature (adapted from *Colliers Encyclopedia* 1964 [19]:381).

in the *Times and Seasons*. An example is the issue of January 1, 1841, which printed an account, inclosed in black borders, (facetious in intent) of the political demise of former governor Lilbourne Boggs of Missouri. A more pertinent example is shown as Figure 22. This is a facsimile copy of a circular printed in January 1846, shortly after the decision had been made to evacuate Nauvoo and remove to the West. The border consists of four different characters of illuminating type, the most frequently used of which is identical to the character found in the excavations on block 149, lot 3 (Figure 20). At the time the circular was printed, the print shop was located on the north side of Main Street just north of Kimball.

Printers normally classify type styles as: old style roman, old style roman italic, modern roman italic, cursive, black letter, and sans serif or Gothic. Sizes are expressed by "point" as 6-point, 8-point, and so on through 72 point. There are 72 points to the inch, thus a 6-point type would measure 1/12 of an inch. The standard height of type—from the base of the body to the paper is .9186 inch. Type is further described by width as: standard, condensed, extracondensed, or extended. The bulk or weight of the type face which produces lightness or heaviness of tone in the printed letter is described as light, medium, bold, or extra bold.

In hand composition, for the period during which the Mormons lived at Nauvoo, the type was contained in a series of type cases—wooden trays divided into compartments of different sizes to accommodate different letters of the alphabet, punctuation marks, ornaments, etc. Each type face and size was contained in two different cases which were supported in case racks. The cases in use at any particular time were placed on top of the rack at a convenient height for the compositor. The lower case contained the more frequently used small letters and was placed directly in front of the compositor with its back edge elevated. The upper case, containing

capital letters, was placed behind the lower case with its back edge elevated a bit more than that of the other so its compartments could be seen more readily. Letters were not placed alphabetically in the compartments but placed in accordance with the frequency with which they are expected to appear in printed matter, the more frequently used being nearer the center.

The cases held particular faces and sizes (fonts), punctuation marks, spaces, and quads. The compositor arranged the type in a metal *composing stick* which had a closed side and top and an adjustable sliding gauge which was set and tightened by a thumb screw to fit particular widths of typesetting. The compositor held the stick in one hand and, with the other, picked up the type piece by piece and set them in the stick upside down and from left to right. When the stick was filled the line of type was then dumped into a tray called a galley. The galley had two sides and a top but no bottom, making it possible to slide an entire galley, without upsetting it, onto a make-up table. Proofs were obtained from the galley, and corrections were made before going to press.

There was, historically, great fluidity and inconsistency in type sizes and the nomenclature that referred to them. Each foundry was a kind of law unto itself, and the types from no two foundries could be made to justify with each other in a line. If a printer wanted to use two sizes of type in the same line, he had to insert small pieces of cardboard or paper to enable a proper locking of adjacent types. Also, the positions of the letters on the bodies varied from one foundry to another so that types from more than one source were bound to produce an imperfect alignment. If paper or cardboard were used as justifiers, those types that were pressed against the softer material often retained blobs of it that clung tenaciously and had to be scraped off before reuse. This, and the cutting of the tiny paper strips, added greatly to the time required for a business that was, even on other counts, time con-

A CIRCULAR, OF THE HIGH COUNCIL.

TO THE MEMBERS OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS, AND TO ALL WHOM IT MAY CONCERN: GREETING.

Beloved Brethren and Friends:—We, the members of the High Council of the Church, by the voice of all her authorities, have unitedly and unanimously agreed, and embrace this opportunity to inform you, that we intend to send out into the Western country from this place, some time in the early part of the month of March, a company of pioneers, consisting mostly of young, hardy men, with some families. These are destined to be furnished with an ample outfit; taking with them a printing press, farming utensils of all kinds, with mill irons and bolting cloths, seeds of all kinds, grain &c.

The object of this early move, is, to put in a spring crop, to build houses, and to prepare for the reception of families who will start so soon as grass shall be sufficiently grown to sustain teams and stock. Our pioneers are instructed to proceed West until they find a good place to make a crop, in some good valley in the neighborhood of the Rocky Mountains, where they will infringe upon no one, and be not likely to be infringed upon. Here we will make a resting place, until we can determine a place for a permanent location. In the event of the President's recommendation to build block houses and stockade forts on the route to Oregon, becoming a law, we have encouragements of having that work to do; and under our peculiar circumstances, we can do it with less expense to the Government than any other people. We also further declare for the satisfaction of some who have concluded that our grievances have alienated us from our country; that our patriotism has not been overcome by fire—by sword—by daylight, nor by midnight assassinations, which we have endured; neither have they alienated us from the institutions of our country. Should hostilities arise between the Government of the United States and any other power, in relation to the right of possessing the territory of Oregon, we are on hand to sustain the claim of the United States Government to that country. It is geographically ours; and of right, no foreign power should hold dominion there; and if our services are required to prevent it, those services will be cheerfully

rendered according to our ability. We feel the injuries that we have sustained, and are not insensible of the wrongs we have suffered; still we are Americans, and should our country be invaded we hope to do, at least, as much as did the conscientious Quaker who took his passage on board a merchant ship, and was attacked by pirates. The pirate boarded the merchantman, and one of the enemies' men fell into the water between the two vessels, but seized a rope that hung over and was pulling himself up on board the merchantman. The conscientious Quaker saw this, and though he did not like to fight, he took his jack-knife and quickly moved to the scene, saying to the pirate, "if thee wants that piece of rope I will help thee to it." He cut the rope asunder—the pirate fell—and a watery grave was his resting place.

Much of our property will be left in the hands of competent agents for sale at a low rate, for teams, for goods and for cash. The funds arising from the sale of property will be applied to the removal of families from time to time as fast as consistent, and it now remains to be proven whether those of our families and friends who are necessarily left behind for a season to obtain an outfit, through the sale of property, shall be mobbed, burnt, and driven away by force. Does any American want the honor of doing it? or will Americans suffer such acts to be done, and the disgrace of them to rest on their character under existing circumstances? If they will, let the world know it. But we do not believe they will.

We agreed to leave the country for the sake of peace, upon the condition that no more vexatious prosecutions be instituted against us.—In good faith have we labored to fulfill this engagement. Governor Ford has also done his duty to further our wishes in this respect.—But there are some who are unwilling that we should have an existence any where. But our destinies are in the hands of God, and so also is theirs.

We venture to say that our brethren have made no counterfeit money: And if any miller has received fifteen hundred dollars base coin in a week, from us, let him testify. If any land agent of the General Government has received wagon loads of base coin from us in payment for lands, let him say so. Or if he has received any at all from us, let him tell it.—

Those witnesses against us have spun a long yarn: but if our brethren had never used an influence against them to break them up, and to cause them to leave our city, after having satisfied themselves that they were engaged in the very business of which they accuse us, their revenge might never have been roused to father upon us their own illegitimate and bogus productions.

We have never tied a black strap around any person's neck, neither have we cut their bowels out, nor fed any to the "Cat-fish." The systematic order of stealing of which these grave witnesses speak, must certainly be original with them. Such a plan could never originate with any person, except some one who wished to fan the flames of death and destruction around us. The very dregs of malice and revenge are mingled in the statements of those witnesses alluded to by the "Saugamo Journal." We should think that every man of sense might see this. In fact, many editors do see it, and they have our thanks for speaking of it.

We have now stated our feelings, our wishes, and our intentions: And by them we are willing to abide; and such Editors as are willing that we should live and not die; and have a being on the earth while heaven is pleased to lengthen out our days, are respectfully requested to publish this article. And men who wish to buy property very cheap, to benefit themselves, and are willing to benefit us; are invited to call and look: and our prayer shall ever be that justice and judgement—mercy and truth may be exalted, not only in our own land, but throughout the world, and the will of God be done on earth as it is done in Heaven.

Done in Council at the City of Nauvoo, on the 29th day of January, 1846.

SAMUEL BENT,
JAMES ALLRED,
GEORGE W. HARRIS,
WILLIAM HUNTINGTON,
HENRY G. SHERWOOD,
ALPHEUS CUTLER,
NEWELL KNIGHT,
LEWIS D. WILSON,
EZRA T. BENSON,
DAVID FULLMER,
THOMAS GROVER,
AARON JOHNSON.

FIGURE 22. A Circular of the High Council—facsimile copy with a border including characters identical to one found in the excavations.

suming. Smart printers were careful to demand their types from only one foundry so they would not be saddled with unnecessary burden. Small operations often had their own foundries so they could replenish their type supply on short notice and avoid some of the expense and delay of ordering them from distant points. A sensible thing for a country printer to do, though, was to order his type molds from a recognized foundry so the types he already had from that foundry, or that he might order from it in the future, would match those that he would make himself.

Many attempts were made after about 1850 to standardize type sizes. Always, resistance was met from founders who did not relish having to bear the expense of retooling and of discarding the many thousands of types on hand. Following the great Chicago fire of 1871, the Chicago Type Foundry, which had to rebuild completely anyway, decided to coerce their reluctant competitors into a standardization system. The result was the American System of Interchangeable Type Bodies. The advantages of the system were so great and so compelling that practically all other founders were forced to follow suit. By 1890 the system was almost universal, and the term "point" had been adopted to refer to the size of types. The old terms referring to type face such as "brevier," "long primer," etc. were retained and others were added, but their measurements were juggled, reorganized, and made to have a precise relationship to "point." The "american" type size was adopted as the unit of measurement, being 1 point (1/12 of pica or 1/72 of an inch). All other sizes, 32 in the American system, were precisely related to it—being mathematically scaled upward from the 1 point american, the smallest, to the 96 point eight-line pica, the largest (Annenberg 1975:194–195).

A comparison of point-name in the American Standardized system with point-name as used prior to about 1871 is given in Table 3. These include only those sizes found during the excavations.

According to Tomlinson (1860:87) three sizes of type were most commonly used in printing newspapers prior to 1860. These were the emerald (American 5 point pearl), the minion (American 5½ point agate), and the bourgeois (American 6 point nonpareil). The *Times and Seasons* initially was printed in 6 point bourgeois. Later, after 1841, much of it, particularly poems, psalms, and hymns, appeared in 4 point ruby—a type smaller than that ordinarily used in newspapers. Four point ruby was commonly used for book printing. Tomlinson pointed out that the 3 point diamond (American brilliant), of which three specimens were recovered in the excavations, was then the smallest type in general use (Tomlinson 1860:87). Apparently, it was never used in newspapers, just in books.

The 313 unbroken specimens of type from the excavations, excluding spaces and quads, belong to seven fonts ranging from 3 point to 40 point. Of these, 199 or 64% are 4 point ruby, and 84 or 27% are 6 point bourgeois. A distribution of all characters including letters, numerals, punctuation marks, ornaments, spaces, and quads is given in Table 4.

Sixty-four percent of the recognizable letters are 4 point ruby—the same size used more frequently in the *Times and Seasons* after 1841. Since 1841 was the year the printing

TABLE 3
A COMPARISON OF PRINTERS' TYPE POINT-NAME IN THE AMERICAN STANDARDIZED SYSTEM WITH POINT-NAME AS USED PRIOR TO 1871

American System		Pre-American "System"	
Point	Name	Point (Approx.)	Name
3	brilliant	3	diamond
4	excelsior	4	ruby
6	nonpareil	6	bourgeois
7	minion	7	long primer
8	brevier	8	pica
10	long primer	10	english
40	double paragon	40	—

TABLE 4
PRINTERS' TYPE FROM 149-3 NAUVOO

Character	Point								Total
	3	4	6	7	8	9	10	40	
A		1	2		1				4
a		10	3						13
a (italic)			2						2
b		4	1						5
b (italic)			1						1
C				1					1
c			1						2
D			1						1
D						1			1
d		11	8		1				20
e	1	23	1						25
F	1		1						2
f		1	1						2
ff			1						1
fi			1						1
G			2		1				3
g		1	3						4
H		3	4						7
h			5						10
I		2	3						5
i		7	1						8
i (italic)		4							4
j		1							1
K			1						1
k		1							1
L			1						1
l			7						7
l (italic)		1	1						2
m		2	1						3
N							1		1
n		12	4						16
n		1							1
O						2			2
o	1	25	5						31
P							1		1
p		1							1
q		1							1
r		3							3
S		10	1		1				12
s		3							3
T		1	4						5
T (italic)			1						1
t		17	4						21
t (italic)		2	1						3
tt		1							1
u		1							1
u (italic)		1							1
V		1	2						3
W		3	2						5
W (italic)			1						1

TABLE 4 (Continued)

Character	Point								Total
	3	4	6	7	8	9	10	40	
X									0
Y				2					2
y			1	2	1				4
Z				1					1
z				1					1
Total Letters of the Alphabet									260
Numerals, Punctuation, and Ornaments									
0			3	2					5
1			5	3					8
2			2	1					3
3				2					2
4				1					1
5				1					1
8				1					1
9				1					1
,			21						21
..				1					1
?				1					1
.			3						3
:			1						1
\$						1			1
!						1			1
!							1		1
Total Numerals, Punctuation Marks & Ornaments									52
Spaces									95
Quads									10
Broken and/or Indistinguishable specimens									154
GRAND TOTAL SPECIMENS ALL KINDS									572

plant was moved from the site, it seems probable the 4 point type was used before then largely in book printing. However, poems, psalms, and hymns appeared in 4 point. The second most numerous size, 6 point bourgeois, comprised 27% of the total recognizable letters. This was ½ point larger than that used to print *The Evening and the Morning Star* at Independence, although the two appear identical. According to Banks (1948:13) the *Star* was printed in brevier type. Brevier was approximately 5½ point, a size called "agate" in the American Standardized System. Observa-

tions made by the writer of the characters printed in the *Star* indicate that brevier was the font used. Thus, it appears that if any of the type used at Nauvoo were salvaged from the ill-fated *Star*, then none of it was lost or discarded at the *Times and Seasons* shops 1 and 2. It should be noted that there is no historical claim that type used at Independence was later used at Nauvoo. The *Elder's Journal* (printed at Far West) shop reportedly was the source of both the press and at least some of the type used on the *Times and Seasons* at Nauvoo. The *Journal*, first printed at Kirtland, was in 6 point bourgeois. Copies of the *Journal* printed at Far West were not available for study.

The different letters contained in a font bear a fixed proportion to each other. This is because some letters are used more frequently than others, e.g., the "e" is used 60 times as often as the "z" (Tomlinson 1960:88). It might be expected that there would be a similar proportion of letters discarded in a printing shop since the more a letter is used the more likely it would be to become worn out. Similarly, the various letters should be subject to loss in direct proportion to their frequency of use. Table 5 is a percentage sort of letters as they appear in a standard font of 1860 compared with the sort as recovered from the excavations. It should be noted that the letter "o" is distinguished from the numeral "0" by its shape. Then, as now, the letter is round, and the numeral is elliptical.

Letters which appeared more frequently than expected included o, d, h, l, g, b, y, w, f, v, k, z, and q. Two letters—t and n—appeared at the expected frequency. The others appeared less frequently than expected. Thus, it is seen that there is not a close correlation between the type found in the excavation and those expected in a random loss-discard situation. The unusually high frequency of the letters, o, d, and g, compared to what could be expected from a standard font, is probably related to unusually frequent use of the word "God" in the *Times and Seasons* and in other

TABLE 5
PRINTERS' TYPE NORMAL FREQUENCY SORT
COMPARED TO SORT FROM THE EXCAVATIONS (Caps, lower case, italics combined—double letters, or logotypes, excluded)

Sort in Normal Expected Use Frequency in 1860 (Tomlinson 1860:88)		Sort in Order of Fre- quency Occurrence in Excavation (nearest 10th)	
Letter	Percentage Sort in Standard Font	Letter	Percentage Sort in Excavation
e	11.0%	o	14.0%
t	8.2	t	11.0
a	8.0	e	9.0
i	7.5	d	8.0
s	7.5	a	7.0
n	7.5	n	6.2
o	7.5	h	6.2
h	6.0	i	6.2
r	5.9	s	5.6
d	4.0	l	3.8
l	3.8	g	2.6
u	3.2	b	2.3
c	3.0	w	2.3
m	3.0	f	1.6
f	1.9	m	1.2
w	1.8	v	1.2
y	1.8	c	1.2
p	1.6	r	1.2
g	1.6	k	.8
b	1.5	u	.8
v	1.3	z	.8
k	.9	p	.8
j	.45	q	.4
x	.45	j	.0
q	.35		
z	.22	x	.4
	99.97%		94.6%

material printed by the church. The name "Christ" was used almost as often, and the letters h, i, s, and t show a high frequency of loss-discard—the letters c and r, also appearing in the name Christ and in the word church, do not. The other departures from expected frequencies cannot be readily explained in terms of the religious orientation of the paper.

A chi-square for goodness of fit was applied to the data presented in Tables 4 and 5 to determine whether the types were recovered in

significantly different frequencies than expected had they been randomly selected from a standard font of 1860. Because chi-square is a test designed for large samples; the letters J, X, and Z; and the letters K and Q were pooled. The results are shown in Table 6.

Since the X^2 value is significant to the .005 level of significance, it appears that the alphabetical characters found in the excavations did not occur at the expected frequencies. The characters which added most of the X^2 significance were O, D, and R—all presumably used with greater than normal frequency in the religiously-oriented matter printed at *Times and Seasons*. The probability that the sample from the excavations could have been taken randomly from a standard font is on the order of one in 10,000.

TABLE 6
GOODNESS OF FIT TEST AS APPLIED TO DATA
FROM TABLES 4 AND 5

Character	E (No.)	Number Found	(O-E) ²
A	21.2	19	.2283
B	3.97	6	1.0380
C	7.95	3	3.0821
D	10.6	21	10.2038
E	29.15	25	.5908
F	5.035	5	.0002
G	4.24	7	1.7966
H	15.9	17	.0761
I	19.875	17	.4159
J,X,Z	2.968	3	.0003
K,Q	3.385	3	.0438
L	10.07	10	.0005
M	7.95	3	3.0821
N	19.875	17	.4159
O	19.875	38	16.5291
P	4.24	2	1.1834
R	15.635	3	10.2106
S	19.875	15	1.1958
T	21.73	30	3.1474
U	8.48	2	4.9517
V	3.445	3	.0575
W	4.77	10	5.7344
Y	4.77	6	.3172

$$X^2 = 64.3015$$

As already noted 27% of the intact type found in the excavations was identified as 6 point bourgeois, the same size as that used in the *Times and Seasons*, the same as that used in the *Elder's Journal* at Kirtland, and, probably, at Far West. According to the historical record, the type used initially at Nauvoo was rescued from a temporary hiding place at Far West. However, additional type was evidently acquired before printing commenced at Nauvoo. Possibly, this was to fill out incomplete fonts or to replace type damaged beyond recall by the unfavorable conditions at Far West.

In 1832, W. W. Phelps bought a press and type at Cincinnati to begin the *Evening and the Morning Star* at Independence. At that time, there was but a single type foundry at Cincinnati—the Elihu White Company established there in 1817 by Oliver Wells, an agent of Elihu White. The main office of the White Company was in New York. The first type was cast in Cincinnati on July 4, 1820. For several years, the normal daily capacity of marginal quality type, was about 5 pounds of the equivalent of 10 point type. The company prospered, however, because type could be produced there and sold in the many frontier communities to the west at less cost than type shipped from the eastern states. In the early years the main promoters of the foundry at Cincinnati were Oliver Wells, his son Horace, and John White, son of the founder. The operation was simply a branch of the parent company until 1830 when the partnership became a corporation—the stockholders being Oliver Wells, Elihu White, and Nathan Guilford of Cincinnati. Until 1840 the laborious hand mold method of typesetting was employed. About 1840 a newly developed machine was adopted, and the hand mold operation was dropped. The result was a rapid growth in volume of business and a better grade of type. The principles of the company retired about 1833, and the new management almost drove the business to bankruptcy by their poor practices.

Horace Wells rescued the company by coming out of retirement to apply his superior knowledge again to its operation. It was on a paying basis again by 1842 (Annenberg 1975:104-05).

Prior to 1840 the White Company had no competition west of the Alleghenies, but in 1840 the St. Louis (Missouri) Type Foundry began operations.

It was the first type foundry west of the Mississippi and was begun by George Charles who had been with the plant of Lawrence Johnson at Philadelphia, and Augustus P. Ladew of Albany, New York. Ladew had been trained in the business by Richard Starr who was a highly competent craftsman, but a poor businessman, living in Albany. A St. Louis newspaper reported on December 1, 1840:

We have received yesterday a specimen of pica type from the foundry of Mr. Charles, who is just opening on Market Street (Annenberg 1975:227).

In July 1843 it was announced that A. P. Ladew had taken full control of the foundry. Soon after, it became known as A. P. Ladew and Company.

Ebenezer Robinson and D. C. Smith, originators of the church newspaper, *Times and Seasons* bought a supply of type from Mr. Galland, a predecessor of theirs at Commerce. Since the St. Louis foundry had not opened at that time, Galland's type most probably had come from the same Cincinnati foundry. Phelps had also bought both his press and type from the foundry. If the types owned by the *Times and Seasons* had all come from the same foundry, as seems likely, it would explain the relative rarity of misalignments and mixed fonts in the paper.

The *Times and Seasons* Printing Press

As already noted, the first press used at Nauvoo, according to the record, was the same one used to print the *Elder's Journal* at Far West. There seems to be good reason to

believe, although there is no solid substantiation for it, that it was the same press used for the *Elder's Journal* when it was being printed at Kirtland. The assumption is that it was moved to Far West from Kirtland.

At that time in the history of American printing, the wooden press was much favored by frontier printers and, especially, by those who anticipated moving occasionally. Wooden presses were lighter in weight than iron ones, and this was an extremely important consideration when the factors of payload and distance were prime considerations in moving. Mostly for these reasons the wooden press not only survived the introduction of metal ones, but its lower initial cost and the conservatism of backwoods printers extended the time during which wooden presses were used. As late as 1800 in Philadelphia, attempts were still being made to improve the wooden press (Moran 1973:40). It is believed that the Clymer press of 1811 and the Hotchkiss press of 1817 were both basically of wooden construction. The early Ramage presses, developed in the period 1800-1830, by Adam Ramage in Philadelphia, were mostly of wood. According to Moran (1973:47) the first Mormon presses in Utah (1849) were Ramages. Several different iron presses were on the market by 1835, but most were discouragingly heavy, and they were not popular among printers with a history of moving from one place to another. One exception was the Washington, first built by Samuel Rust in 1821. The Washington was of iron, but after 1829 Rust had succeeded in building a model which was less than half the weight of its nearest competitor (Moran 1973:79). The Washington made inroads on the popularity of wooden presses on the frontier and was the leader in eventually supplanting them.

There seems to be no record of the type of press used for the *Elder's Journal* nor for the *Times and Seasons*, but since it was buried in the ground for a period of several weeks and since it was admittedly "damaged by the

damp," it was most probably made of iron. A good candidate for the *Times and Seasons* press is the Washington.

Artifacts and Activities Associated With Printing

Only two other artifacts positively connected with printing were found during the excavations. These were copper slabs, one square and the other rectangular, which were used in the printers' stick to separate hand-set lines-of-type one from another. These may be compared with a modern-day line-of-type separator (Figure 23, A–C).

Two specimens are unidentified but may have been associated in some way with the type foundry operated by E. Robinson at the site. Both artifacts are of lead—one a cylinder with three holes punched in the flat slab before it was rolled (Figure 23-D). The other is a semi-circular ribbon of lead which appears to have been formed by pouring the molten metal in a thin stream from a crucible onto a hard, flat surface (Figure 23-E).

According to Robinson (*The Return* [2]:324–25, September 1890), he was operating a type foundry at the *Times and Seasons* shop by 1841. The decision to enter into that activity was probably related more to convenience than to dissatisfaction with type that could be obtained from commercial sources. Robinson could not have produced types that were superior to those from a regular foundry; they could be no better than the matrix and mold used. Presumably, Robinson's foundry involved only the melting of a prepared metallic alloy and type-casting itself. It is unlikely that he possessed the skills to engrave the punch, prepare the matrix, and construct the mold. In any event, if he had done those things himself, the final product could not have been mixed with that prepared by another foundry. But if he had bought his matrices and molds from a single foundry, he then could have prepared his own types and have been assured that they would correspond in length, thickness, style,

and face with particular fonts obtained in the past, or to be obtained in the future, from a commercial foundry.

Some of the types found in the excavation have visible air bubbles in the bodies—a result of improper casting in which not all the air was expelled from the still plastic metallic alloy after pouring it into the mold. In the larger, better-equipped foundries, this troublesome job was greatly facilitated by the use of a vacuum pump, but in cottage-type foundries, such as the one operated by Robinson at the *Times and Seasons* shop, it is improbable that a vacuum pump would have been used.

According to Tomlinson (1860:88), a good typesetter could turn out 500 letters per hour. Evidently, it was not a highly involved matter; perhaps an unskilled caster could produce as many as needed in a short time.

Artifacts Not Associated With Printing

The remainder of the artifacts occurred in considerable variety but were usually not numerous within classes. These were all tabulated according to the excavation units in which they were found on the assumption that a visual perception of the scatter might reveal significant relationships—as happened with the printers' type and the architecturally related objects. The units themselves were aligned into four groups: (1) outside all foundations, (2) between the foundation of buildings 1 and 2, (3) within the foundations of building 2, and (4) within the basement of building 1. This was done to reduce the unwieldy number to manageable size and to test the following assumptions:

1. Artifacts found on the exterior of both foundations could not be related to one building to the exclusion of the other on the basis of distribution.
2. Artifacts found between the foundations of buildings 1 and 2 (this was possible only in a small area on the south end) would be related to building 1.
3. Artifacts occurring within the foundations of building 2 (possible north of building 1, basement only) should relate to building 1.

4. Basement contents would represent deliberate filling and would relate to those times and circumstances during which the filling occurred.

With respect to assumption 1, the overall artifact distribution (including objects related to printing) seems strongly to indicate that the Brunswick pattern of trash disposal (South 1977:47–80) was followed by occupants of both structures. Concentrations of artifacts occurred adjacent to all known doorways and the one stairway. All *suspected* doorways also had concentrations of artifacts near them. The predictive value of the disposal pattern recognition leads toward the correlation of additional artifact concentrations with window locations in one or both buildings, as at the east side of building 2 north of center and both the west and east sides of building 1 and/or 2 south of center. It is apparent that building 2 had, on the west side, a door on the lower floor and a window directly above it on the upper floor. The south end, or facade, had an upper floor window and a lower floor doorway directly below it. One window was probably located on either side of the front door (see Figures 3 and 5). Unfortunately, in the one instance (Figure 3), only a hint of windows appears in the one photograph, and in another photograph (Figure 5) the areas that may have had windows were boarded up along with the doorway. But, since all these locations were significantly higher in artifact concentrations, it may be assumed that trash was being disposed of through the windows as well as the doorways. This conclusion seems to be supported by the concentrations of artifacts on the east side of the structures in relatively restricted areas both north and south of the basement stairway. In these two instances there is no photographic substantiation of openings in building 2.

Thus, assumption 1 was only partly upheld since it appears that artifact concentrations were related, in accordance with the Brunswick pattern, both to known and to hypothetical doorways and windows of buildings 1 and 2.

Assumption 2 seems to be valid with respect to artifacts clearly related to the Mormon period. These, however, consisted entirely of printers' type. None of the other objects found there are datable to the first half of the 19th century. In fact, a large percentage of them are characteristic of the 20th century. As will be observed the only potentially datable objects were glass and nails. The glass was about evenly divided between small pieces of window glass and small sherds of bottles and mason jars (Table 7). Of these, 80% were colorless soda glass—a kind far more common in the 20th century than in the 19th. There were only three specimens having parts useful in dating; two of these were partial rims of screw top mason jars, both with molded lips. The other was a small, complete machine-made medicine bottle with a mold seam crossing the lip. These attributes are characteristically found on 20th century (even present-day) glass containers.

Nails are the only other artifacts found there that are useful, in a general way, for dating. The preponderance of machine-cut nails is indicative of the 19th century but not necessarily the early 19th century since cut nails were not largely supplanted by wire nails until about the turn of the 20th century. These nails may have been used in the construction of building 2.

It is concluded that the glass artifacts represented "spillover" from deliberate filling of the open basement which took place from time to time, ending about 1951. The objects could not have been deposited prior to construction of building 2 because they long post-date that time.

Assumption 3 is only partially valid. A number of 19th century artifacts occurred in those squares which would have been beneath the floor of building 2 until it was razed after ca. 1913. These were more numerous, and in greater variety than would reasonably have occurred prior to 1839, after building 2 covered that area. A great many of them also clearly post-dated that period. Since the area



FIGURE 23. Objects used in Printing Shop and in the household, item B excepted. Items F and I through L have been cleaned by electrolytic reduction. A,C, Copper line-of-type separators from Sq. 25N 190W, L-2; B, Modern line-of-type separator for use in printers' stick (courtesy School of Journalism press, UMC). Length of A is 90 mm; D, Hollow lead cylinder with three holes punched in flat slab before it was rolled. From Sq. 30N 190W. Length is 18 mm; E, Ribbon of lead from Sq. 25N 190W. Width is 15 mm; F, Ruffle iron from Sq. 40N 195W, L-1. Length is 95 mm; G, Clasp (pocket)

in question was covered by a building from August 1839 to about 1913, it seems reasonable that relatively few artifacts made during that period would be found there—particularly those with a short life expectancy following manufacture and acquisition. The fact that they did occur is not surprising. This phenomenon has been observed repeatedly by the writer in excavations at other historic sites. Several explanations for it are possible: broken artifacts were deliberately discarded through holes in the floor during occupancy of the building; some unbroken objects fell accidentally through such holes; old unwanted objects were discarded or left in the building when it was vacated for the last time and, when the demolition crew removed the floor, those objects tumbled to the ground beneath; “packing” animals such as dogs and rats carried objects such as bones and old clothing (with buttons, buckles, etc., attached) beneath the building.

A potentially significant factor in instances of this sort is the time lag between manufacture and/or acquisition of an object, or class of object, and its discard. Ceramics is a case in point. The various kinds of English earthenwares that were most popular during the Mormon period at Nauvoo occur not only in trash of that period but in later deposits as well. This is not difficult to understand as people did not buy a set of dishes and immediately throw them away in pieces. The unknown equation is *how long* after such things were acquired were they broken and discarded?

The situation was complicated by the scatter of artifacts resulting from mid-20th century filling of the basement. Most of these were of relatively recent origin but some were not, and it was impossible to distinguish all of them.

Tables 7–10 show that artifact types and totals were remarkably similar for most functional categories from the two areas. This was true for artifact types, such as ceramics, that were roughly contemporary in manufacturing dates within the early to mid-19th century. It was also true for broad classificatory and functional groups such as glass body-sherds and nails that are not easy to date closely. These observations suggest that both areas were open equally to the same kinds of activities for much of the time during which human activities took place at the site. Yet, this cannot be true because building 2 existed from late 1839 to about 1913, and, assuming it had a floor, covered the area labeled “within foundations of building 2.” According to this explanation, that area was open to unrestricted trash accumulation only before 1839 and after 1913.

It is seemingly significant that those artifacts which can be dated most tightly are either early 19th century or early to mid-20th century. These include the printers’ type, several categories of ceramics, bone artifacts, and the Harrison medal (see below) which date from 1839 or before. The crown caps, gas pipe, electrical connector and fuse, barbed wire, asbestos siding, rubber, aluminum squeeze tube, and aluminum scrap date from the 20th century. The remainder of the material was made up largely of artifacts with long life expectancies and of those which changed little through time.

The credibility of assumption 3, then, was not particularly enhanced by the findings. Some artifacts probably did relate to building 1, but except for printers’ type this was not demonstrated. Investigation of the assumption did result in higher probability statements of what happened there.

knife with bone handle scales and one broken blade. From Sq. 20N 185W. Length is 78 mm; H, Clasp (pocket) knife with pressed wood handle scales and one broken blade. From Sq. 40N 185W. Length is 80 mm; I, Cast iron trivet from Sq. 35N 200W, L-2. Approximate length was 145 mm; J, Table knife, one piece forged iron. From Sq. 15N 200W. Was originally silver plated. Length is 225 mm; K, Slotted serving spoon, forged iron. Length is 240 mm. From Sq. 20N 195W; L, Tablespoon, originally silver plated copper. From Sq. 20N 190W. Width across bowl is 52 mm.

TABLE 7
HORIZONTAL DISTRIBUTION OF CERAMICS

Artifact Class	Outside all Foundations	Between South Foundations Buildings 1-2	Within Foundations Building 2	Totals
CERAMICS				
Brick	X		X	X
Redware, unglazed	23		17	40
Redware, glazed	76		24	100
Brownware	51		9	60
Yellowware	64		20	84
Creamware, plain	7		2	9
Creamware, painted	2		—	2
Pearlware, plain	51		24	75
Pearlware, painted	—		4	4
Pearlware, printed	57		22	79
Pearlware, banded	6		—	6
Pearlware, shell edge	14		7	21
Pearlware, flow blue	29		15	44
Whiteware, plain	358		339	697
Whiteware, painted	42		22	64
Whiteware, printed	85	1	87	172
Whiteware, shell edge	8		27	35
Whiteware, banded	29		2	31
Whiteware, flow blue	30		30	60
Whiteware, other	6		28	34
Ironstone, plain	164		130	294
Ironstone, printed	18		19	37
Ironstone, molded	12		—	12
Ironstone, painted	7		8	15
Stoneware, unglazed	2		—	2
Stoneware, gray salt and slip	52		62	114
Stoneware, brown salt and slip	30		23	53
Stoneware, brown slip	5		1	6
Stoneware, buff salt and slip	10		3	13
Stoneware, buff salt	4		—	4
Porcelain, Soft paste				
Molded	3		—	3
Plain	7		21	28
Painted	4		1	5
Porcelain, Hard Plain	1		6	7
	<u>1257</u>	<u>1</u>	<u>953</u>	<u>2211</u>

(X denotes presence)

TABLE 8
HORIZONTAL DISTRIBUTION OF THE CLASSES: FAUNAL, FLORAL AND GLASS

Artifact Class	Outside all Foundations	Between South Foundations Buildings 1-2	Within Foundations Building 2	Totals
FAUNAL, Artifact				
Bone button			24	24
Bone comb			2	2
Bone handle			5	5
Shell button	6		2	8
Shell button cut-out	6			6
FAUNAL, non-artifact				
Animal bone	157	6	132	295
Shell	106		16	122
FLORAL				
Resin		1		1
Wood	21			21
Glass, natural colors				
Amber bottle	19	12	26	57
Green bottle	85	13	109	207
Blue mason jar	72	1	89	162
Olive (color) bottle	17		9	26
GLASS, colorless				
Bottle	163	97	216	475
Houseware, etched	12	10		22
Houseware, pressed	13		21	34
Jar or Pitcher	10	6	29	45
Mason Jar	44	20	39	103
Thermometer	1			1
GLASS, Artificial Color				
Bead	2		2	4
Housewares	5		7	12
Mason Lid Liner	7		21	28
Bottle	23		36	59
Button	2		5	7
GLASS, Window	1413	106	516	2035
GLASS, Silvered (mirror)			2	2

X denotes presence

ably to make more convenient the job of mowing the grounds which was instituted on a regular basis in the early 1950s. The fill was hauled in from a stream terrace which had on it a prehistoric Indian site (see above).

There is a high degree of correspondence between the 20th century artifacts found within the foundations of building 2 and those found in the middle (and major) layer of the three

which were defined within the basement. Since nearly all the basement middle layer represented deliberate filling, mostly during the 1930s, it seems probable that the similarities are due to the fact that the same activities were responsible for both groups of artifacts. It appears that loads of trash were dumped in the open basement and that some of it, particularly small objects, was deliberately or inad-

TABLE 9
HORIZONTAL DISTRIBUTION OF THE CLASSES:
METAL, MINERAL, COMPOSITION, STONE AND SYNTHETIC

Artifact Class	Outside all Foundations	Between South Foundations Buildings 1-2	Within Foundations Building 2	Totals
*METAL				
Aluminum tube			1	1
Scrap, unidentified	1		5	6
Brass				
Buttons	8		3	11
Cartridge	3		4	7
Shot shell	2			2
Handle	1			1
Needle			1	1
Ring	1		1	2
Snap	2		1	3
Unidentified	2			2
Harrison medal			1	1
Copper				
Disk	6			6
Pin	6			6
Spoon			3	3
Wire	2		2	4
Iron and Steel				
Bolt	4		1	5
Buckle	4		5	9
Button			2	2
Can metal	77		95	172
Clasp	2		2	4
Door bolt	1			1
Can handle			2	2
Door latch	1		3	4
Fish hook	2		5	7
Handle	1	1	2	4
Hinge	3			3
Hook	1			1
Hook and bolt	1			1
Key	1			1
Knife, clasp			2	2
Knife, kitchen	3			3
Chain links	8		1	9
Nails, square cut	2438	35	1345	3818
Nails, drawn wire	202	4	222	428
Nails, hand forged	2		4	6
Nut	5		5	10
Nut and bolt	1		2	3
Ornament	1			1
Ring			4	4
Rod	3			3
Scrap	34		17	51
Chain hook		1		1
Screw	25		17	42

TABLE 9 (Continued)

Artifact Class	Outside all Foundations	Between South Foundations Buildings 1-2	Within Foundations Building 2	Totals
Railroad spike	3			3
Staple	31		16	47
Wire	24		3	27
Horseshoe			2	2
Crown caps			7	7
Gas pipe			33	33
Door pintle			2	2
Snap hook			1	1
File, 3-corner			3	3
Gate staple			1	1
Umbrella ribs			14	14
Barbed wire			2	2
Flat iron			1	1
Ruffle iron			1	1
Rivets			3	3
Cogwheels			4	4
Electric connector			1	1
Fishing sinker			1	1
Punch			3	3
Electrical fuse			1	1
Eye hook			1	1
Vanity case			1	1
Spike			2	2
Washer			2	2
Wire hooks			3	3
Slide fastener			1	1
Perambulator spokes			14	14
Lead				
Melted blob	3			2
Bullet, .38 cal.	1		1	2
Scrap, unidentified			1	1
Perforated cylinder			1	1
Perforated slab			1	1
Pewter				
Snap	1			1
Unidentified	1			1
MINERAL				
Graphite slate pencil	3		4	7
Asbestos			1	1
Hematite	55	3	21	79
Paint, whitewash	X		X	X
Plaster	X	X	X	X
COMPOSITION				
Concrete	X			X
Mortar, lime	X	X	X	X
Paper	3			3
Rubber	4		3	7
STONE				
Utilized chert flake	22 (aboriginal)		4	26

TABLE 9 (Continued)

Artifact Class	Outside all Foundations	Between South Foundations Buildings 1-2	Within Foundations Building 2	Totals
Hammerstone	1 (aboriginal)		1	2
Whetstone	1			1
Building stone	8	1	40	49
SYNTHETIC				
Celluloid	4		1	5
Bakelite	3		1	4
Plastic, modern	3			3

X denotes presence

*A few objects, predominantly metal, have parts made of one or more other materials.

TABLE 10
NAILS FROM N149-3

Type	Size	Total %
Square Cut Nails		
Spikes	over 40d	1 (-)
Framing	40d	5
Framing	30d	4
Framing	20d	6
Framing	16d	15
Boxing	10d	22
Boxing	9d	16
Siding & Finishing	8d	12
Siding & Finishing	6d	3
Roofing	4d	11
Roofing	3d	3
Other	2d	2
Tacks	under 2d	1 (-)
Hand Forged		1 (-)
		100% ±
Drawn Wire Nails		
Framing	20d	9
Framing	16d	29
Boxing	10d	23
Siding & Finishing	6d	24
Roofing	4d	7
Other	2d	6
Tacks	less than 2d	1 (-)
		100% ±

1. Further confirmation of the use of both buildings as dwellings.
2. A conviction that, when dealing with site phases separated by short periods of time, it is impossible to distinguish these phases on the basis of artifact styles.
3. A somewhat better understanding of the range of artifact types to be expected at sites of this era.
4. There is need to sharpen the techniques designed to discover evidence of intra-site patterning viewed as an indication of activity areas within specific sections of a site.

An overriding objective of research at all historic sites in Nauvoo has been to preserve in place—intact if possible—all significant architectural features. Thus, it happens occasionally, as it did at the *Times and Seasons* site, that certain investigative procedures which are theoretically sound and which would normally be followed were precluded because of a more important consideration—preservation of the architectural remains. After determining that the basement walls were rather precariously balanced and that the limestone blocks comprising them—as well as the elements of the foundations—were subject to excessive exfoliation, it was decided not to explore beneath the patio north of building 2 nor along the walls of either building to a depth greater than the sterile soil into which they had been intruded. If it had been decided otherwise, then efforts would have been directed largely toward the recovery of artifacts which might have been present in wall

vertently scattered about the area immediately to the north of it.

The useful information resulting from this effort was limited to the following:

trenches and beneath the building 2 "patio." If this had been done and artifacts which could be tightly dated had been found, it might have been possible to bracket the construction of building 1 to a time more specific than the 33 years period derived from historical sources.

It was determined that the foundations of building 2 were not set below frostline but consisted only of two to three remaining courses, the lower or lowest of which was only 6 to 8 inches below present grade. Excavations in areas contiguous to the foundations resulted in the discovery of no artifacts which were of any help in clarifying the time of construction of building 1.

Discussion of Artifact Significance Architecture

Building Stone

In addition to the intact foundations of the two buildings, there were 49 stones which were of the proper size and shape to use either in the foundations or walls of a stone building. These appeared in all the squares north of building 1 and in eight squares elsewhere. Fragments of limestone exfoliated from larger pieces occurred in every square excavated. Approximately 9% of these had mortar adhering.

Mortar and Plaster

Lime mortar was extremely common, occurring in abundance in those squares north of building 1 and in lesser quantities throughout the entire excavated area. It was the type of mortar used in stone and brick masonry and as a base for plastered interior walls.

Bricks

By no means all the whole bricks and none of the fragmented bricks were saved, although all were recorded by their presence and distribution.

Square Cut Nails (3818)

Of the total, 64% occurred in the 31 squares which lay outside the foundations of building 2, 35% in the nine squares under building 2 north of the basement, and 1% under building 2 south of the basement. Twenty percent of all types had the heads and/or parts of the shanks broken off. All common sizes were represented as well as tacks and spikes (Table 10).

Drawn Wire Nails (428)

These comprise 11% of all the nails. They were found in all common sizes except 30d and 40d. Forty-eight percent were found inside building 2 foundations and 52% outside. Eight percent were headless (Table 10).

The use of machine-cut square nails in building construction was widespread in the Midwest prior to the Mormon period. By 1839 hand forged ones were used only for special purposes, and these normally only in areas where conservatism and an unhurried pace of life were characteristic. The popularity of square nails was not seriously threatened before the 1870s and it was not until the turn of the 20th century that round wire nails essentially supplanted square ones.

It is not unusual to discover a significant percentage of wire nails in the archaeological remains of a building known to have been constructed prior to their general use. They likely represent repairs to the building made after the general adoption of wire nails and the storage of wire nails in the building during the same period.

The large number and wide distribution in size of nails at the site of buildings 1 and 2 strongly support the interpretation that building 2 was a frame building. The appreciable number of broken and bent nails (approximately 16%) probably indicates the building was dismantled—the breakage occurring during attempts to pull the nails from seasoned lumber. The lack of evidence of burning also supports this interpretation.

Wood Siding

These were fragments of 1 x 10 inch oak (*Quercus* sp.) siding or weather-boarding which were found lying directly upon the sand floor of the basement of building 1. Specimens were extremely fragile. The intact linear dimensions ranged from 1.5 to 4.3 feet. Four specimens had sizable fragments of tar paper adhering to them. The tar paper, along with other 20th century artifacts lying at the same level, demonstrates that the basement had received no appreciable trash accumulation until the time of demolition of the building 2. The regular arrangement or positions of the siding (Figure 18) shows that it had been deliberately laid down—probably at the time building 2 was dismantled.

Building Hardware

Strap Hinges

There are three specimens—one complete, 7¾ inches long and 1 inch wide which has a wrapped eye and is hand forged. It is characteristic of the Mormon period at Nauvoo. A second hinge is similar but consists only of a 2¾" long section of one end. Both specimens have beveled screw holes (Figure 24A has been cleaned electrolytically, and Figure 24B has not) (Compare to Streeter [1974:17]). The third specimen is a hand forged "spear" hinge with a cylindrical finial (Figure 24J).

Hinge Hooks (pintles)

One specimen is a plain, wrought iron pintle (Figure 24C). The second specimen is a cast iron shutter hook 1¾ inches high. It has the word "blind" stamped on the reverse side (Figure 24K).

Cast Iron Butt Hinges

There are two specimens. Both are 2½ inches tall—one with 1 inch leaves and the

other with ¾ inch leaves. The larger specimen has "2½" stamped twice on the back of each leaf. The other has "2½" stamped once in the same location. The narrower-leaf hinge has, on the back of one leaf, a word which is illegible. This specimen was deliberately broken in the laboratory to reveal a ball and socket joint (instead of a "cast-in" pin) as described by Streeter (1974:31). This type of hinge was an 18th century invention, and the earlier ones have either the ball and socket joint or cast-in pin (Figure 24E). Both hinges have been cleaned electrolytically.

Door Latch Hardware

One is a thumb latch lifter 5¼ inches long (Figure 24F). A second is a sliding latch 6¼ inches long, with a knob mounted in the middle. Both pieces are hand forged (Figure 24G).

Strap Hinge Rivet

This was used to fasten hinge to a door, and it fits the one complete hinge cataloged.

Spring Latch

This is a hand-forged door latch consisting of a case, latching bar, and a small length of one leaf spring—along with the screw which holds it to the case. The screw is also hand-made as indicated by the off-center slot (Figure 24H). This assembly is much like the English iron rim locks of the late 18th and early 19th centuries (Streeter 1974:41).

Hook Latch

This small interior door latch is 2-3/16 inches long and ¾ inch wide. The unbeveled holes were punched for nails and are irregular in size (Figure 24I).

Hand Forged Spike

This oversize nail could have been used to fasten heavy timbers in either of the structures (Figure 24L).

Hand Forged Staples

These two specimens are similar. They served as the loops for door fasteners (Figure 24M).

Window Glass

This represented by far the largest category. It occurred in abundance in all areas but was heavily concentrated in those squares south of the foundations, between the two south foundations, and in those squares near the north end of the buildings. It appears that windows in these ends of the buildings were broken out and replaced repeatedly over the years.

Discussion

The building hardware recovered is typically early 19th century and could belong to either or both of the two buildings. Some parts of the building 1 may have been salvaged and used in constructing building 2. The two butt hinges and the cased rim lock latch were located near doorways of building 2. Building materials recovered and/or noted indicate: (1) a stone building, probably without a chimney; and (2) a frame building, with brick chimney, built initially with cut nails and repaired later with wire nails. The roof was patched with tar paper. The frame building is strongly substantiated by historical data as well, including a photograph taken late in its life. The stone building is less well substantiated historically in the matter of construction and in whereabouts.

The additional artifacts found are not particularly helpful in describing the appearance of the buildings. Some of them do indicate that one of the buildings was occupied as a dwelling during most or all of the 19th century. This is demonstrated by the substantial numbers of artifacts associated with household activities and with clothing and personal adornment. The majority of these are 19th century in origin but few can be dated more closely than that. One of those that can is reminiscent of the strong republican (Whig) politics of Mor-

mons at the time—a presidential campaign medal promoting William Henry Harrison for president in the election of 1840.

Clothing and Adornment

Presidential Campaign Medal

This is a brass disk 23 mm in diameter and 1 mm thick (Figure 25W). The obverse has a left-facing bust in the center. Along the upper border there is the legend, MAJ: GEN'L WM. H. HARRISON/BORN FEB. 9, 1773. Below the bust there is the inscription, THE PEOPLES CHOICE. On the reverse there is a log cabin with a flag on the gable. In the yard is the familiar Harrison hard cider barrel. Below the cabin is the inscription THE HERO OF TIPPECANOE. During the election campaign of 1840, Harrison was called the "log cabin and hard cider" candidate, at first derisively by his opponents but, later, enthusiastically as a campaign slogan by his supporters. The term originated because the familiar "born in a log cabin" theme of United States Presidents applied to Harrison and because of the story that cider, rather than wine, was served at his table. Whig party supporters often carried miniature log cabins in their processions and campaign rallies (Encyclopedia Britannica 1958 v.11:222).

Buttons

Gilt (brass) Buttons

One is a plain, flat disk with the brazed loop broken away. All the gilt is gone and there is no inscription. It is 16 mm in diameter. A second button is 22 mm in diameter. It has a deeply depressed back and a brazed loop. An inscription reads EXTRA RICH/SUPER FINE. The face has a stamped flower with foliage and six diamond-shaped petals. Nearly all the gilt remains on the face, back, and loop. A third specimen is 15 mm in diameter, has a face decorated with stamped bosses and fili-

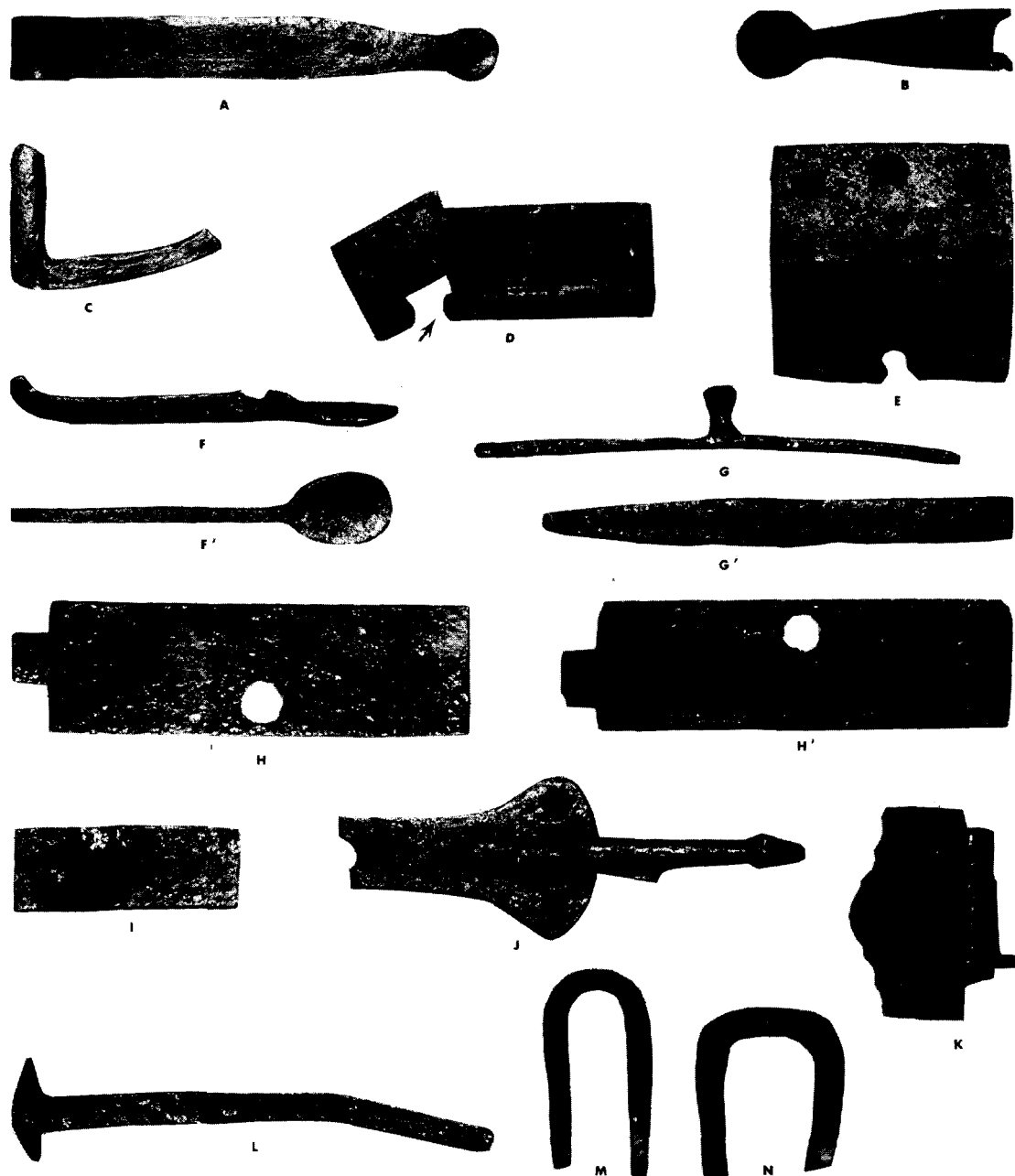


FIGURE 24. Building hardware from one or both of the two buildings. A, Hand forged pintle hinge with rolled loop. From Sq. 20N 185W, I-2. Cleaned electrolytically and sealed; B, Hand forged hinge similar to A, from Sq. 20N 185W, L-2. Not cleaned; C, Hand forged hinge hook or pintle from Sq. 20N 185W, L-2. Designed to fit with types A and B; D, Cast iron butt hinge with ball and socket joint (arrow). From Sq. 35N 195W, L-1. Length is 64 mm; E, Cast iron butt hinge with (probably) ball and socket joint. From Sq. 20N 200W, L-1. Length is 62 mm; F-F', Latch lifter of hand forged iron—lateral and superior views. From Sq. 30N 200W. Length is 133 mm. Cleaned and sealed; G-G', Sliding latch of hand forged iron—lateral and superior views. From Sq. 35N 200W, L-2. Length is 160 mm. Cleaned and sealed; H-H', Spring latch

gree, and has some of the gilt remaining. The center of the face is depressed 1 mm and four holes are present. The back is stamped G. BARNETT and R. ARMFELD'S/PATENT (Figure 25Z-Z').

Hard Rubber Buttons

These specimens differ in size and appearance but all have two things in common. They are 2-hole, and each has the stamped inscription N. R. Co./GOODYEAR'S P-T/1851. Two have depressed faces and one a raised face surrounded by a raised border. Two inscriptions are on the backs and one on the face. The largest is 25 mm in diameter; another is 23 mm, and the third is 21 mm. All are coat buttons and date 1851 or later (Figure 25X-Y).

Military Style Buttons and Buckle

A buckle was found at floor level in the basement. It is 38 mm in diameter and weighs 84 g. The face is a plain, thin sheet of brass covering and crimped over the edges of a lead-filled body. On the reverse a rectangular lead stud contains a heavy, double iron wire, nearly rusted away, which served to hook on a belt. Construction of this buckle is identical to a U.S. Army specimen recovered from Wilson's Creek National Battlefield (Bray 1967: 155). The two are the same approximate age—1850 to 1860 (Figure 25Z").

Three identical military style, 3-piece, brass buttons were found. The convex faces have an American eagle stamped in relief. The backs are slightly depressed, and the loops are hooked under the backpiece, without brazing. All have stamped inscriptions which are only partly legible. Two read EXTRA/---, probably "rich" or "fine." The third reads WATERBURY BUTTON CO. The latter refers to

Waterbury, Connecticut, where the Aaron Benedict Button Co., begun in 1823, was succeeded by the Waterbury Button Company after 1834 (Bray 1968:66). These military style buttons may have come from uniforms used by members of the Nauvoo city militia, better known as the Nauvoo Legion.

Bone Buttons

These are the most numerous group and are among the oldest of the buttons.

Five specimens are 25 mm in diameter, have somewhat depressed faces and convex backs, and four jig-drilled holes. Four are approximately 3 mm thick, and a fifth is 4 mm thick. They are coat buttons of Mormon period styles (Figure 25T) similar to South's type 20 dated 1800–1865 (South 1964:121).

Eleven specimens have flat backs with saw marks visible and convex faces with depressed centers containing five holes. Although machine-cut and drilled, the hole arrangement is irregular—suggesting a misaligned jig. Five buttons are 7 mm in diameter and 2 mm thick. One of these has decorative lines on the periphery. The others are plain. Six specimens conform in style but are much smaller (10 mm) than the others. They are shirt, blouse, or underwear buttons (Figure 25U).

Seven specimens have slightly convex backs and flat faces with depressed centers. The centers each have four holes drilled with a powered, mechanical jig drill. Five have visible centering holes, while two do not. Size varies slightly from 17 to 14 mm. These are shirt, blouse, or underwear buttons. They are Mormon period styles (Figure 25V) similar to South's type 20 dated 1800–1865 (South 1964: 121).

of hand forged iron—obverse and reverse views. From Sq. 30N 190W, L-2. Cleaned and sealed; I, Hook latch, hand forged iron. From Sq. 30N 185W. Cleaned and sealed; J, Strap hinge with finial. Hand forged iron. From Sq. 20N 185. Cleaned and sealed; K, Cast iron shutter hook 32 mm high. "BLIND" is stamped on reverse. From Sq. 20N 170W, L-2. Cleaned and sealed; L, Hand forged iron spike from Sq. 15N 170W. Cleaned and sealed; M-N, Heavy, hand forged staples from Sq. 30N 180W. Uncleaned.



FIGURE 25. Ceramics, buttons, Harrison medal and belt plate. A, Blue, transfer printed, whiteware rimsherd (English ca. 1825); B, Green, brown and blue banded pearlware (engine turned) rimsherd (English ca. 1835); C, Flow blue pearlware sherd (English ca. 1850); D, Molded, blue painted, shell edge pearlware rimsherd (English ca. 1830); E, Molded, blue painted, shell edge whiteware rimsherd (English ca. 1850). Note single stripe paint in molded area, as compared with the single brush stroke technique represented in D; F, Hand painted (peasant enameled) pearlware rimsherd (English ca. 1830); G, Hand painted pearlware rimsherd (English ca. 1830); H-I, Yellow ware rimsherds (American ca. 1845); J, Yellow ware muffin cup (American ca. 1880); K, Ironstone lusterware (tea leaf pattern) (English ca. 1870); L, Salt glaze stoneware made at Monmouth Pottery, Monmouth Illinois (American ca. 1900); M, Slip glaze stoneware rimsherd (American ca. 1860-1890); N, Redware, molded, unglazed tobacco pipe (American ca. 1855);

Shell Buttons, Blanks and Cut-outs

A home industry making shell buttons undoubtedly existed at Nauvoo, as indicated by the occurrence of numerous fresh water clam shells with cut out portions, undrilled button blanks, and completed buttons (Figure 25 R-S). Species range in size from a tiny disk 7 mm in diameter having four holes to larger ones up to 22 mm in diameter.

Similar complexes occurred at the Homestead Summer Kitchen site (Bray 1972) indicating a home industry there. Although one might assume that a home button industry would be confined to the earlier period of occupation, it seems probable that this one extended well into the 20th century as both cut-outs and blank buttons occurred in the basement fill of building 1—deposits dating from the 1920s and 1930s. These were carried from elsewhere, but it is doubtful whether they were appreciably older than the time of filling.

Shortly before publication of this paper, it was learned that a Mr. Knipe, an older resident of Nauvoo, according to his own testimony, cut shell button blanks one winter during the Great Depression. The cutting rig he used was apparently not complemented with a drill jig for drilling holes—he sold the blanks to a button manufacturer.

Glass Buttons

There are three 2-hole and four 4-hole specimens. Five are plain white undecorated. One has a painted reddish band on the periphery, and another has a line of adjacent slashes around the periphery.

Iron Buttons

Two overall buttons comprise this group. They are almost indistinguishable because of rust.

Glass Beads

These are all faceted: four blue and two green. One specimen is 18 mm long and 10 mm in diameter; the other blues range from 4 to 6 mm in diameter. Two of these occurred in the basement fill and are not included in Table 8.

Silver Finger Ring

This is a 5 mm-wide band with “sterling” stamped on the inner surface. The outer surface has the stamped initials I.A.H., on either side of which is a simple floral wreath. The ring is for a male finger. It is, perhaps, only a coincidence that the initials are the same as those of Isaac A. Hill, a pioneer brickmaker at Nauvoo.

The Household

Ceramics

Analyses and discussions of Nauvoo ceramics have appeared in previous reports (Bray 1972; Waselkov et al., 1975). These are available in microfiche from the University of Missouri. Major ceramic types from Nauvoo block 149, lot 3 are presented in (Table 7). A selection of characteristic types are illustrated in Figure 25A-Q. Those from the basement of building 1 are not included—they are practically all 20th century types.

The ceramics recovered from the excavations outside the basement included a wide range of 19th century decorative and paste types. Numerically, the whiteware—latest of the creamware-pearlware-whiteware continuum—exceeded all others with 697 sherds. This is in contrast to some other English ceramic assemblages at Nauvoo which tend to be weighted on the side of pearlware paste

—O-P, Bisque (unglazed porcelain) arm and leg from doll (German? ca. 1875); Q, Salt glaze, gray stoneware (American ca. 1860–1900); R, Fresh water clam (*Unio* sp.) with portion cut out for manufacture of button; S, Shell cut out and blank shell button; T-V, Bone buttons; W, Wm. H. Harrison presidential campaign medal—1840; X-Y, Hard rubber buttons—Goodyear's patent; Z-Z', Gilt buttons with stamped legends on reverse; Z'', Lead-face military-style button.

(Waselkov, Bray & Waselkov 1975:50). Whatever significance this may have is difficult to assess. Certainly, it is not simply a matter of the time period of occupancy since other sites were occupied continuously from 1840 throughout the remainder of the century, just as the *Times and Seasons* building seems to have been. Yet, whiteware manufacture in England began early in the 19th century and by 1840 was well on its way to supplanting the older pastes from which it evolved. Various factors affecting the percentages and distributions of ceramic types in archaeological contexts remain essentially unexplored. These include questions such as:

1. Lag time between manufacture and acquisition of a ceramic piece and its appearance in a trash heap.

2. The accident-proneness of certain families, as opposed to others, which would result in larger quantities of broken ceramics.

3. The customary manner of disposal of broken ceramics. Some families used trash pits or dumps and tended to be fastidious while others simply swept unwanted artifacts out the nearest door. Also some towns instituted trash pick-ups at fairly early times, and some families used them while others did not. Trash disposal at sites excavated at Nauvoo corresponds closely with the Brunswick Pattern (South 1977:47-50.).

4. Does the absence of a contemporary ceramic type mean families used it less, were more careful with it, disposed of broken pieces where the archaeologist did not look for them, or simply, did the families own none of that particular kind?

It was recognized early in the excavations that there might be a selective distribution of ceramics (as well as other artifacts) related to the two successive buildings on the site. This hypothesis, it was believed, could be tested by (1) establishing a vertical or superpositional distribution of types and (2) treating separately the area which was "sealed" beneath the floor of building 2 at the time of its construction. Table 7 reflects the latter effort and

shows that there was no significant difference between the sealed and unsealed contexts with respect to relative numbers of ceramic types. This is not particularly surprising inasmuch as style changes during such a brief period are difficult to detect. However, the relatively greater numbers of period ceramics in a supposedly sealed context is much harder to be sure about. The obvious explanation (although there may be others unrecognized) is that this area was the backyard of building 1 before building 2 was erected. Even though the former may have been a warehouse for most of its existence, it was a dwelling for at least many months prior to mid-1839. The later 19th century and early 20th century ceramics found there accumulated during the existence of building 2 and after it was razed. These ceramics constitute the largest percentages of all types. They include mostly the white paste earthenware, plain ironstone, and coarse stoneware.

There was also a dearth of early earthenware and a relative abundance of later types from squares south of building 2. It appears that this was associated largely with building 2 because practically no ceramics occurred between the two foundations. This may be related to the function of building 1 as a warehouse, rather than a dwelling, for most of its short life and to the fact that this area was the front of the building where trash build-up is less rapid.

Attempts to segregate artifacts on the vertical plane failed as they so frequently do at sites with little midden build-up. The north end of the site had been cultivated which thoroughly mixed the deposits there, but, even at considerable depths in the uncultivated parts, it was common to find 20th century artifacts from the trash-dump era side by side with early 19th century types. Causes of this phenomenon which is commonly observed at historic sites are not fully understood.

It is clear that ceramics found in the excavations were related to family occupancy of both buildings. The greater abundance of relatively

late types reflects use of the frame structure throughout the remainder of the 19th century and into the 20th century. Some ceramics dating to the 1920s and 1930s were deposited during periodic filling of the nearby basement, simply by being scattered carelessly.

Glass

The glass recovered was usually in small pieces (except the modern glass in the basement) and, except for window glass, consisted largely of bottle and mason jar fragments. There were 212 (17%) of the glass sherds with identifiable features (necks, lips and bases) useful in dating. Of these only 23 (11%) were made prior to the 20th century and most of those were from natural color bottle glass. The remainder dated after 1903 and included few tableware pieces.

Other

Other objects found in households of the 19th century included a ruffle iron (Figure 23F); bone- and wooden-handled clasp knives (Figure 23G–H); ornamental iron trivets (Figure 23I); one-piece, iron table knives (Figure 23J); slotted iron serving spoons (Figure 32K); and large silverplated, copper tablespoons (Figure 23L).

These objects are all, except J, K, and L Mormon period styles and are probably associated with the 1940s occupation. The iron knife and solid cast spoon, especially if plated, were manufactured after 1845 (Kovel and Kovel 1961:331).

A significant minority (18%) of artifacts outside the basement were 20th century in manufacturing date—some of them as late as the 1920s and 1930s. These were particularly numerous at the north end of the basement. It appears that this area was the approach to the basement during the time it served as a trash dump and that the trash haulers were not careful to assure that all their trash went into the basement. These artifacts constitute a wide

variety as might be expected if they originated with several different families. They tend to be small in size as compared with those in the basement, indicating that they may have been carelessly scattered coincidentally with the unloading of bulkier objects into the basement.

A majority of artifacts were manufactured after the 1840s. They occurred at this Mormon period site because the second building there continued to be occupied as a dwelling throughout most or all of the 19th and well into the 20th centuries and because the site was used as a dump for a period of several years. The total artifact assemblage includes almost entirely household-related objects and those related to printing; this indicates that these were the major, if not the only, functions of the structures.

Summary and Conclusions

An attempt was made to trace the history of Latter Day Saints (LDS) printing from the founding of the church in 1830 to the schism in 1846. Particular attention was given to matters which demonstrated the influence of several successive newspapers on the establishment and operation of the newspaper, *Times and Seasons* subject of this paper; on the development and evolution of the church's internal organization; and on the interaction of the church and its followers with the non-Mormon (gentile) communities in Ohio, Missouri, and Illinois.

A major objective and result of the research—to establish a locational sequence of four successive shops in which the *Times and Seasons* was printed in Nauvoo—employed standard and specialized archaeological techniques, complemented by historical and autobiographical materials. The preponderance of evidence supported locations 1 and 2 as having been in two successive buildings on the same site; location 3 as having been in a third building across the street from the first two;

and the fourth location as having been in a building, standing today, two blocks north and one block east of the first three.

Several hypotheses, of both specific and general relevance, were tested. A major one—correlation of printers' type occurrence in a random loss-discard situation with an expected frequency based on the assortment of letters in a standard font of the mid-19th century—indicated a random loss-discard for most letters of the alphabet but a non-random loss-discard for certain letters used in words, such as God and Church which appeared frequently in the *Times and Seasons*. These words were assumed to have been used more frequently in printing devoted almost entirely to church and religious matters than in printing devoted to secular matters.

Distributional patterns of printers' type in the excavation indicated use of both buildings as printshops. Distribution of both printers' type and domestic artifacts indicate the Brunswick pattern of trash disposal.

ACKNOWLEDGMENTS

I would like to extend my thanks to the Presiding Bishopric of the RLDS Church at Independence, Missouri and, in particular, to Bishop Russell W. Pearson who has faithfully supported this project and all the archaeological research at Nauvoo since its inception in 1970. Thanks are also extended to Kenneth Stobaugh, Director of the Joseph Smith Historic Center at Nauvoo; Dr. F. Mark McKiernan, collaborator for history in the project; George Lund, architectural consultant; the late Dr. T. Edgar Lyon and Dr. Robert Flanders, both among the foremost experts on Nauvoo history; personnel in the archives and audio-visual section at the RLDS Church headquarters at Independence, Paul DeBarthe, my field assistant in the project; members of my field school in historical archaeology; and members of the internship in historic interpretation sponsored by Graceland College and the Joseph Smith Historic Center, all of whom participated.

Further, I have made such frequent reference to Dr. Loy Banks' fine work on Latter Day Saints journalism that I mention it specifically here as an acknowledgment of my debt to him.

Finally, I appreciate the good auspices of my own institution, the University of Missouri-Columbia and, in particular, Dr. Carl Chapman and Dr. William Marquardt,

successive Directors of the Division of American Archaeology, Department of Anthropology.

REFERENCES

- ANNENBERG, MAURICE
1975 *Type Foundries of America and Their Catalogs*. Maran Printing Services, Baltimore.
- BANKS, LOY OTIS
1948 *Latter Day Saints Journalism*. Unpublished PhD Dissertation, University of Missouri, Columbia.
- BRAY, ROBERT T.
1967 *Archaeological Investigations at Wilson's Creek Battlefield National Park*. Unpublished Typescript. National Park Service, Midwest Region, Omaha.
1968 *Preliminary Archaeological Investigations at First Missouri State Capital, St. Charles*. Unpublished Typescript, Division of Parks and Recreation, Department of Natural Resources, Jefferson City.
1972 *Archaeology at the Joseph Smith Homestead, Nauvoo, Illinois*. Microfiche (1979), Missouri Archaeological Society, Columbia.
1973 *Archaeological Investigations at the Joseph Smith Red Brick Store*. Microfiche (1979), Missouri Archaeological Society, Columbia.
1974 *The Turley Site*. Microfiche (1979), Missouri Archaeological Society, Columbia.
- ELDERS' JOURNAL OF THE CHURCH OF
LATTER DAY SAINTS
1837, 1838 October–November 1837, Kirtland, Ohio; July–August 1938, Far West, Missouri.
- ENCYCLOPEDIA BRITANNICA
1958 Volume 11:222.
- THE EVENING AND THE MORNING STAR
1832–1834 June 1832–1833, Independence, Missouri; December 1833–September 1834, Kirtland, Ohio.
- FLANDERS, ROBERT BRUCE
1965 *Nauvoo, Kingdom on the Mississippi*. University of Illinois Press, Urbana.
- FORD, THOMAS A.
1854 *A History of Illinois from Its Commencement as a State in 1818 to 1847*. Chicago.
- GREGG, THOMAS A.
1968 *A History of Hancock County, Illinois*. Chicago. Reprint of 1880 edition.
- HARRINGTON, VIRGINIA
1968 *Report on the Excavation of the North Building Times and Seasons Complex*. Nauvoo Restoration Inc., Salt Lake City.

HILL, GUSTAVUS (ENGRAVER)

1842 Plat of Nauvoo.

JACKSON, DONALD

1957 William Ewing, Agricultural Agent to the Indians. *Agricultural History* 31:2.

KOVEL, RALPH AND TERRY KOVEL

1961 *A Directory of American Silver, Pewter and Silver Plate*. Crown Publishers, New York.

LATTER DAY SAINTS' MESSENGER

AND ADVOCATE

1834–1837 October 1834–September 1837, Kirtland, Ohio.

McGAVAN, E. C.

1946 *Nauvoo the Beautiful*. Salt Lake City.

MORAN, JAMES

1973 *Printing Presses, History and Development from the Fifteenth Century to Modern Times*. University of California Press, Berkeley.

NAUVOO BUSINESS DIRECTORY

1859 Map Book of Hancock County. Charles Shober, Chicago.

NAUVOO EXPOSITOR

1844 June 7, 1844, Nauvoo, Illinois.

NAUVOO INDEPENDENT

1909 September 15, 1909, Nauvoo, Illinois.

NAUVOO NEIGHBOR

1843–1845 Nauvoo, Illinois.

ORGAN, MINNIE

1910 History of the County Press. *Missouri Historical Review* 4:123.

PRICE, RICHARD AND PAMELA PRICE

1970 The Nauvoo Research Report: A Study of the Four Times and Seasons Buildings and Other Historic Sites. Typescript in the Research Collections of the RLDS Church, Independence.

REPS, JOHN W.

1969 *Town Planning in Frontier America*. Princeton University Press, Princeton.

THE RETURN

1889–1891 January 1889–February 1891, Davis City, Iowa; October 1892–October 1893, Richmond, Missouri.

1895–1896 March 1895–December 1896, Davis City, Iowa.

ROBERTS, B. H., EDITOR

1948 *History of the Church*. 5 Volumes, Vol. 1. Salt Lake City.

SAINTS HERALD

33:779. Independence.

SMITH, ELBERT A.

1910 Forerunners of the Saints Herald. *Saints' Herald* 57:82, Independence.

SMITH, HEMAN C.

1912 Independence Publications. *Journal of History* 5:147–48.

SMITH, LUCY MACK

1846 *Joseph Smith and His Progenitors*.

SOUTH, STANLEY

1964 Analysis of the Buttons from Brunswick Town and Fort Fisher. *The Florida Anthropologist* 17(2):113–33.

1977 *Method and Theory in Historical Archaeology*. Academic Press, New York.

STREETER, DONALD

1974 Early American Wrought Iron Hardware: English Iron Rim Locks. *Bulletin of the Association for Preservation Technology* VI(1):40–33.

TIMES AND SEASONS

1839–1846 November 1839–April 1840, Commerce (Nauvoo), Illinois; May 1840–February 1846, Nauvoo, Illinois.

TOMLINSON, CHARLES

1860 *Illustrations of Trades*. Society for Promoting Christian Knowledge, London.

TUCKER, SARA JONES

1942 Indian Villages of the Illinois Country. Vol. II, *Scientific Papers*, Part 1, Atlas, Illinois State Museum, Springfield.

UPDIKE, DANIEL BERKELEY

1962 *Printing Types, Their History, Forms, and Use*. The Belknap Press of Harvard, Cambridge.

WASELKOV, GREGORY, ROBERT T. BRAY AND

LINDA WASELKOV

1975 *Archaeological Investigations of the Hyrum Smith Site, 1974*. Microfiche (1979), Missouri Archaeological Society, Columbia.

THE WASP

1842–1843 Nauvoo, Illinois.

ROBERT T. BRAY
DEPARTMENT OF ANTHROPOLOGY
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI 65201